DOCUMENT RESUME

ED 133 074 PS 009 022

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TITLE Environmental Setting in Home and Preschool: An Investigation of Dimensions of Context Equivalency.
PUB DATE [74]
NOTE 136p.

EDRS PRICE MF-$0.83 HC-$7.35 Plus Postage.
DESCRIPTORS *Classroom Environment; *Environmental Influences; *Family Environment; Literature Reviews; *Measurement Instruments; *Preschool Education; Questionnaires; Rating Scales; Test Construction; Testing; Test Reliability; *Test Validity

ABSTRACT

This study attempted to develop and validate a set of scales to measure ecological characteristics of environmental setting in home and preschool. Scales were developed to assess four characteristics of environmental setting: (1) accessibility, the ease with which a child can interact with his environment; (2) configuration, the function and arrangement of space in home and preschool; (3) instability, the patterned use of time periods and time-related function of spatial areas; and (4) complexity, the extent to which the environment fits the child's mental skills as well as his physical skills. Items for the scales were generated from reviews of the descriptive literature on home and parent behavior, the literature on current preschool program practices, and observations of homes and preschools made by the investigator. To establish criterion validity, a study was run to assess the degree to which the four scales discriminated among three categories of preschool programs known to differ in environmental setting as an extension of theoretical orientation on development. All of the scales were found to have suitable reliability for their intended purposes. Substantial face validity was established, but results of the validity study do not allow for judgments to be made concerning criterion validity for the scales. (Author/SB)

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ENVIRONMENTAL SETTING IN HOME AND PRESCHOOL: AN INVESTIGATION OF DIMENSIONS OF CONTEXT EQUIVALENCY

Judith Williams Seaver

ABSTRACT

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The purpose of the study was to develop and validate a set of scales to measure ecological characteristics of environmental setting in home and preschool. Since many young children attend some kind of formalized care program outside their home, an analysis of the characteristics of the overlapping sets of home and preschool practices could provide a basis for encouraging the development of the child through establishing continuity of home and preschool practices. Environmental setting is a context variable common both to home and preschool as an extension of the teaching role performed by both parent and classroom teacher.

Scales were developed to assess four characteristics of environmental setting in home and preschool: accessibility, the ease with which a child can interact with his environment; configuration, the function and arrangement of space in home and preschool; instability, the patterned use of time periods and time-related function of spatial areas; and complexity, the extent to which the environment fits the child's mental skills as well as his physical skills. The scales are brief, with simply worded items accompanied by an easy to use Likert response format. Items for the scales were generated from reviews of the descriptive literature on home and parent behavior, the literature on current preschool program practices, and observations of homes and preschools made by the investigator. Two pilot tests were run with mixed groups of respondents (parents and teachers). The four scales were refined, and final reliabilities as computed by coefficient alpha ranged from .650 to .801. These reliabilities are acceptable for the purpose of making predictions about groups of respondents.

The theoretical rationale for the development of the four environmental setting scales was drawn from observed differences in implementation of environmental setting in preschool programs which used model curricula from each of three points of view on development and learning: behaviorist, cognitive and maturation. The

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range of content in each of the four scales was designed to include the practices within and among each of these three points of view. The extensive use of descriptions of program implementation for programs exemplary of the three points of view assured an acceptable degree of content validity for the scales.

To establish criterion validity, a study was run to assess the degree to which the four scales discriminated among three categories of preschool programs known to differ in environmental setting as an extension of theoretical orientation on development. A sample of teachers currently working in preschool programs was asked to describe their classroom emphases, and respondents were grouped into program categories according to these self-descriptions. An analysis of variance was run on the program means for each of the four scales. Results of the analysis of variance were insignificant and were judged inconclusive based upon situational factors in the validity study. The low scale reliabilities for the validity sample, along with loosely defined criterion points made the possibility of falsely rejecting the null hypothesis of no differences among program means quite high. Trends in the data and face validity, along with previously established scale reliabilities, justifiably warrant other attempts to establish criterion validity.

Following proper validation of the scales, steps can be taken to use the scales in applied studies. Homes and preschools can be matched on dimensions of environmental setting, and information could be gained as to the benefit of various levels of match on children's performance in preschool programs.

ENVIRONMENTAL SETTING IN HOME AND PRESCHOOL: AN INVESTIGATION OF DIMENSIONS OF CONTEXT EQUIVALENCY

BY

JUDITH WILLIAMS SEAVER

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CHAPTER I

INTRODUCTION AND PROBLEM

General Introduction

Preschool programs vary in orientation, and parents differ in parenting behaviors and child-rearing practices. A reasonable assumption is that there is overlap between practices evidenced in preschool programs and practices evidenced in homes. Since many young children attend some kind of formalized care program outside their home, an analysis of the characteristics of the overlapping sets of home and preschool practices can provide a basis for encouraging the development of the child through the continuity of home and preschool practices.

Rationale

Currently, trends in both the public and private sectors point to continued development and support of preschool programs along several theoretical positions and financial bases. At the federal government level, preschool program development was fostered by Head Start and was channeled somewhat by the selectivity of Planned Variation and Project Follow-Through. Representing both pure and amalgamated versions of three major theoretical thrusts, behavioral-environmental, cognitive-transactional, and normative-maturational, federally sponsored programs have been designed to serve disadvantaged children.

With private financing, advantaged children have continued to be served by widely available traditional, locally-designed preschool programs. The traditional preschool programs serving advantaged children are not typically federally funded, and efforts to incorporate elements from the Head Start program models have been teacher specific and not mandated by any authority. Nevertheless, the impact of contemporary societal forces has caused increasing diversity in the definition of what constitutes any particular traditional program.

Federal and state monetary support as well as private individuals' willingness to pay fees have increased the availability of day care services for all children. Although historically custodial, day care services now often include an educational component similar to preschool programs which are operated for shorter time periods. Further adding to the availability of preschool programs is the establishment by private enterprise of franchised preschool programs. Still another influence on preschool program diversity in the private sector is the American Montessori Society. The Society has overseen the spread of accredited Montessori programs and the training of Montessori teachers throughout the country (Orem and Stevens, 1970). Day care programs, franchised programs, and Montessori-based programs often resemble Head Start and/or traditional programs in curriculum structure illustrating further the availability in kind and number of a wide range of preschool programs.

Children are the visible clientele of a preschool program. Yet, the true consumers of preschool programs are parents. Parents make three very crucial decisions with regard to preschool experiences for their children. Parents first decide if their child will participate in any preschool program. The second and, perhaps concomitant, third parental decisions concern the child's age at entrance and the particular program which the child will attend. These latter decisions may not always be freely determined as local program availability can constitute a constrait on parental choice. Parents exercise their right to make these three decisions when they enroll their child in a preschool program.

Yet, preschool programs do not, in turn, recognize that the decision to enroll a child reflects the parent's child-rearing beliefs and practices.

Instead, the emphasis on parent involvement and parent education demonstrated in most preschool programs tends to ignore or sidestep the importance of the three parental decisions regarding initiation of preschool experiences. The notion appears to have been accepted that some kind of parental involvement, concurrent with the child's attendance, is necessary for the program to have positive effects for the children. While research generally supports the belief that preschool program effects are enhanced by parental involvement (Gordon, 1968; Klaus and Gray, 1968; McCarthy, 1969) there remains considerable disagreement concerning the kind and degree of parental involvement sufficient to effect positive results in cognitive and affective skill development for children. The low percentage rate of participation by low income and disadvantaged mothers, the prime target population of parent involvement efforts (Lazar and Chapman, 1972), leads one to question whether the conclusions generalized from small, biased samples can truly form the basis of the assumption that parent participation benefits all children and all parents.

The locus of the issue that parent involvement is good may, in fact, rest more on the common observation that what parents do or have done profoundly influences their children's behavior in all situations, school not excepted. Parents are known to employ different child-rearing practices, and it is this larger constellation of parenting behaviors which underlies the decisions parents make about initiation and type of preschool experience for their children. To summarize the point, a subset of the large constellation of parenting characteristics is congruent with a set of preschool program characteristics. The characteristics involved in the parent and program sets may be behavioral, educational, environmental, affective, etc.

The issue of overlap between preschool program characteristics and parenting characteristics can be viewed from two perspectives. the identification of characteristics which match or the identification of characteristics which do not match. Each perspective posits a value judgment that a match is desirable.

The identification of matched (congruent) parent and program characteristics could provide a means for optimizing the combined efforts of home and preschool in fostering the child's growth and development. The most nearly optimal match of parent and program characteristics would provide a basis for minimizing the effects of parental non-involvement by maximizing the probability that home and school environments could be sufficiently matched prior to attendance to ensure that parent and program characteristics are mutually supportive or at worst benignly different.

The identification of discrepant parent and program characteristics would, of course, provide clues as to where program and parents may conflict to the detriment of the child's growth and development. If the assumption is substantiated that parent and preschool characteristics should be similar, the knowledge of which characteristics are discrepant between home and school could be used as a basis for designing a program to train parents or as a basis for redesigning the preschool program to resemble more closely the prevailing characteristics of the parent population it serves. A slightly different approach would be to tie decisions about the kind of preschool program to be implemented in any given area to the collective characteristics of the local parent population.

As desirable as matching home and preschool program characteristics may appear to be, there is a lack of research evidence addressed to the identification of characteristics which are common both to parenting behavior and preschool programs. The range of variables included in the problem of matching characteristics is broad as arguments can be constructed to support a number of different educationally relevant variables such as language style (Hess and Shipman, 1965) and achievement motivation (Maccoby, 1966). One such variable, environmental setting, is the focus of the present investigation.

Environmental setting is a product of a design process engaged in consciously or unconsciously by mother and teacher. Teachers and preschool program planners have been cognizant of the educational relevance of environmental setting as evidenced by attention given to such things as room arrangement, material and activity selection, daily schedule, etc.

Home environments were often discussed in earlier investigations of social class in terms of the physical arrangement of the home, the type of child activities, and the space and time orientation of adults in the child's immediate environment. Typically, these environmental setting descriptors were subsumed under the generic term socio-economic status. Recent investigations have moved away from the pigeon-holing efforts of ascribing socio-economic status levels to parents and have focused instead on parent behavior descriptors which cut across socio-economic levels. Often cited as a reason for this refocusing is the fact that parent behavior has been favorably compared to teacher behavior with the parent cast in the role of the child's first teacher.

Describing parental teaching behavior makes more sense if done in terms of the parent's methods and techniques rather than labeling behavior according to socio-economic status. A logical extension of the parent's teaching role is to view the home as comparable to the classroom as an environmental setting for a child's early learning experience, parents being the designers of environmental settings in the home.

Environmental setting as an educationally relevant construct can be viewed as a third-generation variable. Originally subsumed under the umbrella descriptor of socio-economic status, it was then embedded in the teaching role of parents. Environmental setting now emerges as a context variable common to both home and preschool as an extension of the teaching role performed by both parent and classroom teacher.

Statement of the Problem

The investigation focused on the identification and measurement of environmental setting aspects common both to home and preschools. The purpose of this study was to develop a scale to assess each of four aspects of environmental setting: accessibility, configuration, instability and complexity. As part of the validation procedures, the scales were used to discriminate among three types of preschool programs known to differ in environmental setting based upon the program's theoretical orientation.

Three program categories were used: Maturation (M), Cognitive (C), and Behaviorist (B). Hypotheses stated for each scale were:

Accessibility Scale: M > C > B

Configuration Scale: M > B

Instability Scale: M > C > B

Complexity Scale: M > C > B

Definition of Terms

Environmental setting. The lack of consensus in the descriptive and research literature on environmental setting as to what constituted dimensions of environmental setting made it necessary for the investigator to establish dimensions which subjectively appeared relevant to the investigation. Environmental setting dimensions were chosen which applied equally well to both home and preschool settings.

Environmental setting was defined as the physical context in which development can occur. Physical context of development was further described by four related aspects, chosen to be descriptive of both home and preschool environments: the accessibility of objects and furniture, the configuration of the space, the instability of spatial arrangement and use patterns, and the complexity of objects found in the space. The unique combination of these four aspects in any home and preschool constituted the operationalized definition of environmental setting for that home or preschool.

Accessibility. Accessibility was defined conceptually as the ease with which a child can interact with his environment. Physical availability, rules and regulations, and limits and boundaries co-determine the accessibility dimension of environments in home and preschool.

Examples of accessibility are the height of supply and toy storage shelves, the number of games allowed at one time, and the number of children allowed to play in certain areas at any one time.

Configuration. Configuration is a descriptive aspect which includes the physical attributes of home and preschool spatial environments. Configuration of space is jointly described by the size of the space, the scale of space and its contents, and the function and location of the space.

Examples of configuration are the amount of open space available to the child to play and the distance of the available play space from toy storage, group areas, and adult activity areas.

Instability. Time-related changes occur in both home and preschool environments. The instability aspect covers the patterned use of time periods as well as the time-related functions of physical areas in home and preschool environments.

Examples of instability are the time of occurrence of meals or snacks and the sequencing of activities such as toilet-juice-outdoor play and lunch-nap-playtime.

Complexity. Complexity taps the extent to which environments fit a child's mental skills as well as his physical skills. Play activities and equipment can be described in terms of the developmental skills necessary for manipulation and the amount of adult mediation necessary for success.

Examples of complexity are the number of different games that can be played with the same toy and the presence and use of both simple and challenging games.

Limitations

The exploratory, nonexperimental design of this investigation was a deliberate attempt to provide as broad a conceptual and empirical base as possible for development and validation of scales to assess environmental setting in home and preschool. The conceptual definitions of each of the four scales are described earlier, but the rigorous operationalized definitions common to experimental work are not to be found. One result of this study was the formulation of operationalized definitions and descriptor statements which are congruent with the conceptual definitions presented. Because no instruments presently exist which assess environmental setting in home and preschool and because work in this area is just beginning, the decision was made to remain as flexible as possible in developing scale items within the conceptual confines of domain definitions. Premature operational definitions would have biased the scale item development.

Generalization of results obtained in analyzing instrument scale scores will be limited and will be most useful only in developing and refining the scales under construction. Trends observed in such analyses will help in formulating hypotheses for future experimental investigation (Campbell and Stanley, 1963, p. 64).

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

For years developmental psychologists have been probing the determinants of intelligence seeking to discover the key to optimal intellectual development. The nature-nurture or heredity-environment issue was hotly debated. Philosophical and research interests focused in the extreme on the question of whether intelligence was determined by genetic inheritance or was an artifact of environmental determinants. Along with others, Anastasi (1958) cogently summed up the emerging viewpoint from this controversy that neither heredity nor environment was solely responsible for an individual's intelligence. Rather, the interaction and reaction of an individual (with his unique genetic make-up) to the particular environment in which the individual existed would determine the intelligence of that individual. Refinements such as Dobzhansky's (1950) idea of genetic limits within which environment can minimize or maximize genetic potential and Jones' (1954) position of environmental limits posed by inadequate social milieus were still seen as possible explanations. However, the basic premise offered by Anastasi of interaction as the critical process was not negated.

Renewed Interest in Environment

Writing of research interests prior to the 1960's, Deutsch (1973) attested to the few references made in the years 1930-1960 to environmental effects on the basic psychological and developmental processes in young children. Similarly, Wohlwill (1966) catalogued the dimensions of environmental stimulation most frequently discussed by psychologists as novelty, complexity, temporal change and incongruity; but noted that most of the research did not involve developmental processes in young children.

The "rediscovery" in the 1960's of early childhood as the blueprint years for later learning and life styles focused renewed attention on the environmental context of learning. The emphasis in Head Start programs on environmental intervention highlighted the changing conceptions of just how environment could affect the learning and development of young children. Preschool programs were seen as mini-environments planned to ensure the acquisition of appropriate behavioral responses and values (Evans, 1971; Horowitz and Paden, 1973). Developmental psychologists concerned with a broad range of learning behavior have increasingly looked to new positions and definitions of the role environment plays in shaping and determining behavior. Fowler (1968) labeled this interest "developmental ecology."

Environment as Context

Recognizing the important interactive contributions of heredity and environment, Bloom (1964) stated that variations in environment have their greatest effect in the early years of development, and Horowitz and Paden (1973) noted that performance fluctuations in young children may be a symptom of high environmental vulnerability for the young child.

The emerging view that environment provides a context for learning was espoused by Gewirtz (1968) who suggested that context setting conditions are a means to facilitate behavior; Yarrow (1968) who described the caretaker role as one of an environmental mediator; Anastasi (1967) who suggested assessment of environmental context in studies involving young children; Bronfenbrenner (1974) who posited that child behavior must be researched in context to be valid for generalization; and Evans (1974) who asserted that context relativity governs children's behavior. Summarizing the literature on environment as context for children's learning, Baas (1972) reported the acceptance of the idea that the extent to which individual differences among children may appear in relation to their learning, the differences relate to ways in which they learn in any given environment.

Environmental Effects on Behavior

Acceptance of the effects of environmental context on children's behavior is positive; yet research which aimed to detail explicitly the precise effects of different environments is scarce. Fowler (1962) criticized such studies as too broad to be useful in setting up model environments. Less concerned with practicality, Gewirtz (1968) emphasized that controlling stimuli cannot be reliably identified. Freeberg and Payne (1967) concluded that most evidence has not dealt with specific mechanisms which would explain environmental effects on children. Pinpointing perhaps the most revealing criticism of existing research, Bartholomew, Potts and Hertz (1972) noted that little research has dealt with how the same children behave in different environmental settings.

Early Research with Preschool Children

Observational and descriptive research efforts in the 1930's revealed some interesting patterns concerning the type of play and the kinds of materials children used in preschools. Murphy, Murphy and Newcomb (1937) found that simple materials focused children's attention and that complex materials were associated with more quarreling and competition behavior. Van Alstyne (1932) reported that dolls, blocks, crayons, and clay were conducive to conversation behavior in preschool children; paints, scissors, and books were not. In 1935, Markey concluded from a series of observations that spacious settings encouraged creativity for preschool children; and Murphy (1937) listed sleds, wagons, housekeeping toys, slides, tricycles, and swings as conducive to cooperative play among children in nursery school. The net effect of these reports was to lend credence to the idea that different materials and arrangements of environments in nursery schools would stimulate different kinds of behavior; but as noted earlier, no conclusions could be drawn concerning the effects different materials had for individual children.

Recent Research with Preschool Children

Barker (1968), while concerned with the methodology of recording streams of behavior as the behavior occurred in the natural habitat of the individual, did begin to address the issue of how similar environments would affect different individuals. Using two components, Wright (1967) established behavior settings as settings which were a stable part of the physical and social milieu of a community, and settings which had an attached standing pattern of human behavior. Barker (1968) stated that, ". . . inhabitants of identical ecological units will exhibit a characteristic overall extra-individual pattern of behavior . . ." (p. 10). Further, Barker observed that additional behaviors present in the behavior stream of the individual will then represent that individual's unique response behavior to the behavior setting. Barker's work represents an attempt to describe systematically and classify behaviors of individuals in equivalent environmental contexts with the recognition that context will affect behavior. While important because of the methodological innovations, the content of Barker's work does not help in identifying specific environmental mechanisms as antecedents for preschool children's behaviors.

In an exploratory study of the situational factors which affected the spontaneous behavior of preschoolers, Shure (1963) using a time-sampling procedure found that children's activities in five areas (block corner, art, housekeeping, story, and science) were related to the physical arrangement of equipment in any given area. More children spent more time in the block area which was largest in size and most free in terms of physical arrangement. No conclusions were reported for the effects of physical arrangement for individual children.

A more recent study using a semantic differential instrument tested the hypothesis that greater discrepancy exists between mother and father and between parents and teachers in describing a poorly adjusted kindergarten child than a well adjusted kindergarten child (Medinnus and Johnson, 1970). Data gathered supported the hypothesis, and the authors offered the explanation that the observed discrepancy may be a function of the child's inconsistent behavior in the two situations represented, home and kindergarten. Based upon the child's behavior in the situations most often observed, parents and teachers may reasonably hold different expectations for the child without realizing that the two contexts are different for the child.

Loo (1972) investigated the effects of high and low spatial density on the behavior of four and five year olds. Using a repeated measures design in which each subject was his own control, Loo found that children varied their behavior according to density. Specifically, children were less aggressive in crowded conditions and tended to be more aggressive and mobile in open areas.

Related to Loo's work on spatial density and conceptually similar to Barker's methodological innovations in assessing ecological context for behavior, Kritchevsky, Prescott and Walling (1969) have reported the most extensive and pertinent study to date on the effects environment can have on the behavior of children. Kritchevsky, Prescott and Walling (1969) observed and analyzed the space configurations in 104 California day care centers and nursery schools. Their results, while not reported for specific individual children, are reported as trends observed in the reaction of recognized groups of children to observed spatial characteristics of centers. Children of high socio-economic status functioned well in space which was roomy, interesting, low in noise, and characterized by little crowding. Indoor space was emphasized to the virtual neglect of outdoor areas. Children of Spanish-speaking, Mexican-American parents were observed in space that was crowded and congested with no evidence of conflict or cramping. Centers with Jewish staff and Jewish children also exhibited characteristically crowded space accompanied by little conflict and irritation. Kritchevsky, Prescott and Walling (1969) speculated that this reflected the warm, close cultural environments enjoyed by these children.

Recognizing the nonexperimental design of the Kritchevsky investigation, it is nevertheless impressive that trends were found in the data relating spatial characteristics of centers to groups of children. The conclusion reached was that:

> . . . there is a strong possibility that young children may "read" identical settings differently, depending on their background, and

> what may be appropriate and useful for one group, may be inappropriate and unpleasant to another. There may be wisdom, therefore, in determining the previous "spatial experience" of a group . . . (Kritchevsky, Prescott and Walling, 1969, p. 36).

Summary

Consensus and acceptance of the importance of environmental context as a determiner and/or stimulator of behavior are evident in the current writing of both psychologists and educators. Research reported tells little about how different children respond to different environments. Two different environments common to many young children are home and preschool. Some recent data has indicated that correspondence between these two contexts is an issue that needs to be further investigated.

Home as an Environmental Setting

The child-rearing patterns of our culture place most of the burden for the care of young children on the mother or mother substitute. The caregiving behaviors of the mother, then, constitute a primary component of the child's environment (Yarrow, 1963). As a caregiver, the mother is the mediator of stimulation for the child; she designs settings or experiences for her children and functions as a manager in regulating the daily stream of events, people and things that transpire in the home (Fein and Clarke-Stewart, 1973; White and Watts, 1973).

Patterns of Parent Behavior

Implicit in the present study of home-preschool environmental setting is that there are, indeed, differences among caregivers with respect to child-rearing patterns. Central to this postulate is the assumption that these different parenting patterns can be measured or quantified.

Fels Parent Behavior Rating Scales

One of the early major attempts to assess parenting behaviors was the work of Alfred Baldwin and various associates at the Fels Institute. A set of 30 scales were developed and labeled the Fels Parent Behavior Rating Scales (Baldwin, Kalhorn and Breese, 1949). The scales were intended to measure a variety of parental behaviors, attitudes and home conditions. Mothers and children who were part of the permanent cooperating population of the Institute were observed in their homes. The home visitor completed the scales on the basis of observations made during home visits.

Baldwin, Kalhorn and Breese (1945) reported the emergence of three syndromes which described the homes in their sample, democratic, acceptant, and indulgent. Within each of these syndromes the homes were rated as high, low or middle, leading to a possibility of 27 combinations which could be used to profile any given home. From the profiles which they constructed, Baldwin, Kalhorn and Breese (1945) reported the finding of three patterns, rejectant, acceptant and casual. The textual descriptions of homes representing each of these patterns reveals differences among homes in the mother's role in managing the environment. Conclusions of this type, however, were not the intent of the Baldwin study and so are merely hypotheses about differences described for other purposes.

A later study using the same scales (Baldwin, Kalhorn and Breese, 1949) reported a slightly different group of patterns. Homes were profiled under the pattern names of warmth, democracy and indulgence. A fourth pattern of intellectuality was deemed not to be important enough to stand as a separate pattern. Again, the textual illustrations of the three patterns of homes indicated differences in environmental setting as maintained and managed by the mother; but again this difference was not part of the original focus of the work.

Factor analysis of the Fels scales. As part of the continuing effort to interpret the Fels scales, efforts were made to analyze the scales used to collect the 1945 Fels data. Roff (1949) factor analyzed the Fels scales and labeled seven factors:

1. concern for the child,
2. democratic guidance,
3. permissiveness,
4. parent-child harmony,
5. sociability-adjustment of the parents,
6. activeness of the home, and
7. nonreadiness of suggestion.

These factors represented clusters of characteristics which cut across 30 scales. Lorr and Jenkins (1953) performed a second-order factor analysis on the Roff results in order to further reduce the intercorrelations between the factors. Three second-order factors emerged from their analysis:

an x factor--dependency-encouraging,
a y factor --democracy of child training, and
a z factor --organization and effectiveness of control in the home.

In their interpretations of the three factors, Lorr and Jenkins (1953) touched on some characteristics which directly relate to the area of environmental setting as a context variable. With reference to the y factor they reported that the scales on policy, clarity of policy, nonrestrictiveness, noncoerciveness of policy, and nonreadiness of criticism contribute substantially to the factor. Also, the z factor seems to be an assessment of the position of the home on a continuum of chaos to strict order. Both of these factors, as viewed conceptually by the clusters which contribute to them, point very strongly to the fact that differences found among homes on the Fels Parent Behavior Rating Scales are in large measure differences reflective of variations in environmental setting context.

Sears' Research on Patterns of Child Rearing

A later and conceptually different approach to the measurement of parenting behavior was the sociological study of Sears, Maccoby and Levin (1957). A series of scales and questionnaires were used to record data from home visits to homes representing different socio-economic classes. Data were collected and presented as descriptions of typical patterns of child-rearing practices.

Factor analysis of Sears' scales. Milton (1958) factor analyzed the ratings on the Sears' scales and isolated seven factors. Of these seven factors, the last two listed were considered to be poorly defined and are not mentioned as part of the concluding interpretations of Milton's discussions of the analysis. The seven factors are:

1. strictness or nonpermissiveness of parental behavior,
2. general family interaction or adjustment,
3. warmth of mother-child relationship,
4. responsible child-training orientation,
5. parents' attitudes towards aggressiveness and punitiveness,
6. tendency of mother to perceive father as controlling agent in family, and
7. mother's concern for the child's well-being.

As with the Fels data, the factor analysis did not directly address itself to the question of whether homes could be said to differ on environmental setting context. Yet, circumstantial conclusions and trends seem to indicate that homes did indeed differ on that characteristic; but specific differences are embedded within ratings designed for other purposes.

Parent Attitude Research Instrument

Schaefer and Bell (1958) in their review of the literature on parent-child relationships documented the existence of differences among parents. The Parent Attitude Research Instrument (PARI) reported in that study has since been the most widely used instrument in studies measuring parent attitudes. The PARI was initially developed in response to a need by clinical psychologists for a systematic, objective measure of personality factors associated with child-rearing.

Final Form IV of the PARI is an inventory of 115 single-stimulus items which are presented and scored in Likert style. Twenty-three subscales of five items each are used, with five of the subscales being "rapport" scales which attempt to neutralize respondents' tendencies to agree with accepted child-rearing attitudes. Heavy use and refinement of items from existing parent attitude inventories assured the PARI of concurrent validity (Schaefer and Bell, 1958, p. 353).

Criticism of the PARI. In view of the extensive use of the PARI in studies of parent attitudes since 1958, Becker and Krug (1965) undertook a comprehensive review of the PARI and the research findings related to it. Becker and Krug's analysis demonstrated the presence of an acquiescence response set (ARS) in the PARI. Work by Zuckerman and Norton (1961) and Zuckerman, Ribback, Monashkin and Norton (1958) also substantiated the presence of an ARS in the PARI. While Scott (1968) views the ARS as a subject variable, Rorer (1965) and Couch and Keniston (1960) believe the ARS to be an artifact of instrument construction. Becker and Krug (1965) were unable to isolate the effects of an ARS in the PARI and concluded that the ARS is an artifact of the PARI and that revision of the PARI to remove the ARS would be extremely difficult.

Another possible defect of measures of attitude may be social desirability response set (Scott, 1968). No studies of this type of response set in the PARI have been reported. Becker and Krug (1965) stated, "Using the PARI alone, however, any attempt to build a social-desirability scale would lead to a measure confounded with acquiescence" (p. 337).

Schaefer and Bell's (1958) original conclusion that educational level of respondents does not influence PARI scores was contested by Becker and Krug (1965) who cited numerous studies which show, ". . . that the major factor being measured by the PARI is highly susceptible to influence by educational processes" (p. 340).

The technical criticisms leveled against the PARI are serious enough to cast doubt on the results obtained in studies in which the PARI was used. However, for purposes of supporting the assumption under question, the demonstration of significant differences among sets of parents as measured by the PARI cannot be totally discounted. Despite the instrumentation problem, differences were still obtained (Becker and Krug, 1965).

Examination of the individual items on the PARI scales indicated that a very few items asked questions pertinent to the issue of environmental context of the home. The general conclusion that can be drawn from work with the PARI is that differences among parents were obtained using this measure; but that only indirect indication is given that environmental setting was tapped by the measure.

Summary

The assumption that there are differences among parents with respect to child-rearing behaviors is plausible. The Fels study, Sears' work, and the PARI studies have all demonstrated that by various scales and with various populations parents can be sorted into discriminably different groups on some criteria of child-rearing behavior. Reporting the considerable disagreement concerning the exact nature of differences among parents with respect to child-rearing patterns, Lytton (1971) in a review of 50 parent-child interaction studies listed a variety of variables, methods and conclusions reached by these researchers.

Recent work has prompted a reexamination of the appropriateness of parental attitude variables as the unit of analysis in looking at differences in parenting patterns. Schaefer (1972) has suggested that educational opportunities present in the parent-child interaction should constitute the critical unit of analysis in quantifying parenting patterns. One educationally relevant dimension common to all parenting situations is environmental setting.

Assessment of Home Environmental Setting

No instruments exist which assess environmental setting in the home using aspects such as accessibility, configuration, instability and complexity. Several investigations have included single items or single variables related to environmental setting as part of larger investigations focused on other hypotheses. Schaefer and Bell (1958) reported items on the PARI which are of interest, and items in the Fels Parent

Behavior Rating Scales (Baldwin, Kalhorn and Breese, 1949) and the pattern study ratings (Sears, Maccoby and Levin, 1957) are useful sources for small numbers of items. Ball (1972) asked for information on a maternal questionnaire related to the time of family meals and space allowed for children's activities. Baldwin and Baldwin (1973) described how homes could be divided into settings based upon predominant activities in areas.

None of the above instruments or studies contain items relating to the four aspects of environmental setting in any quantity that concurrent validation could be attempted for the instrument developed in this study. The items mentioned served only as prototypes for items.

Descriptive literature on homes. As part of an intensive investigation of parenting behavior, Stolz (1967) described and classified information received from the parents on the basis of home interviews. Much of the information gathered is summarized in text form and serves as a source of ideas for instrument items. With respect to behavior settings mentioned by parents the most frequently, Stolz (1967) reported settings involving danger, time, occupation, weather and importance.

The massive investigations associated with Head Start program evaluation have produced a body of data and interpretations related to characteristics of homes of Head Start children. The Head Start Evaluation (Westinghouse Learning Corporation, 1969) summarized data that related to environmental setting in homes. Instruments published in that report contained items relating to home environmental setting. Again, this information served as a source for items for the instrument developed.

Shipman (1972) in discussing the widespread information net set up to collect information on 1800 families with Head Start children described how strong attempts were made to ". . . isolate more exact indicators of home environments and of parental characteristics . . ." (p. 32). Of all the situational variables listed by Shipman (1972), three relate very closely to the four aspects of interest in this study. The three situational variables are:

1. potential "stress" conditions like repair of dwelling, lighting, location in neighborhood,
2. child's possessions--material objects and living space, number of things and places for things, and
3. child's range of mobility--diversity as measured by excursions outside home (p. 14).

Information pertinent to these variables was obtained in a home visit and reported on forms by the interviewer. Both the instruments used and the data obtained are reported in great detail and are rich sources for development of items for the present study.

In the context of a natural experiment on parenting behavior and child competency, the current Harvard Preschool Project is investigating differences among parents with respect to environmental setting (White and Watts, 1973). The guiding hypothesis of the particular phase of the project that relates to home environment is:

> . . . that differences in competence apparent in children by age three may to some extent be explained by systematic differences in the environments these children experience before age three (Watts and Barnett, 1973, p. 157).

The child's environment is defined conceptually as an amalgam of ". . . the relevance of the child's experience to his development of intellectual and social competence," and the ". . . elements of the external environment that enter into that experience" (Watts and Barnett, 1973, p. 157).

The data collected to date have involved primarily descriptions of mother-child interactions described as participatory (direct, active); nonparticipatory (indirect, suggestive); managerial (indirect); and diffuse (related influences). Two scales, the Human Interaction Scale and the Object Interaction Scale, were developed to code the child's experiences with aspects of his human and nonhuman environments respectively. In addition, three questionnaires were used to obtain further information. One, the Typical Day Questionnaire, provides information concerning the mother's managerial role: specifically, the role she plays as designer and organizer of the child's experiences and activities. The other questionnaires are interview schedules used to obtain information with regard to the mother's diffuse role in the home.

Data were collected through home visits by a team of observers who rotated assignments using all instruments on each visit. Visits were scheduled for five separate days approximately three weeks apart. Reported to date are a total of 54 observation periods spread unevenly over 31 subjects aged 12-33 months. Watts and Barnett (1973) recognize the serious limitations placed on any data interpretation by the small number of subjects and the fact that upper and middle class homes are over represented in the small sample.

Discussion of results of the project necessarily focused on trends since data collection is not complete. Primary emphasis has been placed on interpreting data trends from the Human Interaction and Object Interaction Scales because of the implications present for mother-child interactions. Items clearly indicative of environmental setting are woven into each of the instruments, but comments about environmental impact differences are enmeshed in discussions of mother-child interactions and are never dealt with separately.

The mother-child interaction emphasis of Watts and Barnett's (1973) work differs from the ecological study of environmental setting of this study. The substantive content and conceptual base of several of their instruments provided a supportive framework for the instrument development in the present investigation with the recognized limitation that Watts and Barnett (1973) have done nothing to correlate or even compare home and preschool environmental settings.

Summary

The literature indicates scattered and sparse attempts have been made to assess aspects of home environmental setting. No single measure adequate for the present purposes of this study exists. Several studies have included either prototype items or have reported extensive descriptive information on what various homes are like. This descriptive information provided a resource for developing items to assess home environmental setting.

Of particular note in regard to the literature on parenting patterns and home environmental setting is that no single theoretical explanation is offered or supported by the data. The identification of unifying constructs to explain parenting behavior or to classify home environmental settings is not found in the literature.

Preschool as an Environmental Setting

Preschool programs provide the second major learning context of interest for young children. The literature on types of preschool programs is extensive, and, unlike the literature on parenting patterns, there are some discernible and accepted theoretical underpinnings for various preschool practices. The following section will discuss the typing of preschool programs with identification of the theoretical positions and principles underpinning the major types of programs and the teacher's role in relating environments to program goals. It will proceed to compare logically program practices with respect to environmental setting characteristics associated with specific programs in each of the major program categories.

Types of Preschool Programs

Program variation, both planned and unintentional, is a reality for early childhood education in the '70's. Source factors influencing program design are:

1. the characteristics of the programs' client populations,
2. redefinitions of traditional subject areas in terms of teachable content for preschoolers, and
3. different psychological theories concerning human growth and development.

Ex post facto efforts to differentiate among established preschool programs have tended to center upon categorizations reflecting either characteristics of client population or psychological theories.

Hess, Bloch, Costello, Knowles and Largay (1971) presented a philosophical categorization scheme for classifying preschool programs which is based upon client population characteristics. Roughly addressing the issue of "why" different preschool programs have been designed for the same clientele, the categories of Hess et al. are:

1. Deficit model--programs which view the client population as lacking basic knowledge or skills;
2. Schools as failure model--programs which are designed to help the client population succeed within the traditional school structure;
3. Cultural difference model--programs which highlight positive aspects of the client population's minority culture; and
4. Social structural model--programs which encompass all aspects of the client population's daily life which might influence their children.

No attempt has been made by others to classify specific programs using the above categories. Further, since the categorization scheme primarily involves assessment of the preschool program's rationale, rather than actual practices, the classification scheme of Hess et al. (1971) is not appropriate for identifying and typing programs according to environmental setting variations in actual practices.

Along with the proliferation of programs based upon psychological theories of development have come attempts to categorize programs according to the theoretical positions which they most closely resemble. Branche and Overly (1971), illustrating the alternative views of learning and development represented by existing programs, arranged specific programs in approximate positions along a continuum of theoretical positions: behaviorist to maturational. Specific points along with continuum were labeled using terminology from developmental theory:

behavioral-environmental emphasis, cognitive-transactional emphasis and normative-maturational emphasis. Table 1 represents an adapted version of Branche and Overly's (1971) categorization of preschool programs.

The behaviorist approach views the child as a responder to his environment and presents relatively specific performance objectives and goals. Instructional techniques are related to the achievement and performance of these specified objectives.

Straddling the middle of the continuum are those programs which evidence in their objectives primary concern for the cognitive development of the child. Preschool experiences are designed to increase or expand the child's knowledge and/or thinking skills according to stages of thought development. Instructional techniques and objectives are specifically focused on cognitive skills, but are broadly representative of all kinds of content and behavior patterns.

At the maturation end of the continuum are those programs which view the "whole child" as the educable unit. Objectives are global; instructional strategies are eclectic and broad. Concern is manifested for the child's well-being as a facet of his total maturation and development.

Klein (1973) has also placed specific programs along a theoretically-based continuum ranging from behaviorist to psychodynamic-maturation points. Weikart (1972a) formulated a scheme for categorizing programs which utilized quadrants identified by cross-classifying child and teacher roles. Weikart did not place specific programs within each quadrant, but did draw lines between categories of programs and developmental theory: programmed curricula and behaviorist theory; open framework and cognitive theory; child-centered and maturational theory.

Table 1

Model Preschool Program Placements

Behaviorist Orientation	Cognitive Orientation	Maturational Orientation
Behavior Analysis	Cognitive Developmental	Bank Street
Engelmann-Becker	Ypsilanti Preschool	Vintage Head Start
Primary Education Project	Responsive Environment	Educational Development Corporation
Diagnostic Prescriptive		

Acceptance of developmental theories as a basis for discriminating differences among preschool programs is widespread (Evans, 1971; Fein and Clarke-Stewart, 1973; Mayer, 1971; Sigel, 1972; E. Weber, 1969). Efforts to specify the theoretical positions of individual models have produced consensus in placement of programs in behaviorist, cognitive and maturational categories. Extension of the theoretical statements to educational practices has appeared in several sources (Dowley and Bromwich, 1972; EPIE Report, 1972; McCandless and Evans, 1973). Programs which are not monitored versions of any model program can be assessed and accurately categorized on a local basis using the composite program descriptions in these sources. Given that there are discriminable differences among preschool programs in terms of theoretical orientations and classroom practices, it is reasonable to turn to the question of whether different program models create different environmental settings.

Environmental Setting in Preschool Programs

Traditionally concern for environmental setting in a preschool program has been discussed in terms of the physical arrangement of the classroom, the daily schedule, and the durability and cost of equipment. The teacher's role in setting up the classroom has been that of an interior decorator (Beyer, 1968; Hildebrand, 1971; Read, 1966; Rudolph and Cohen, 1964; Spodek, 1972). One outgrowth of the model programs sponsored by Head Start was increased concern for explicating the environmental setting of a given model so that the instructional aspects of the program could be reliably disseminated to interested parties. Attention was paid to environmental setting dimensions such as activity and material selection, daily schedule and furniture arrangement because these things reflected the underlying assumptions of the program and affected the program's successful implementation. Model program planners were deliberately designing unique instructional environments which were inseparable from their program's aims. The net effect of the emphasis on environmental setting dimensions was to change the teacher's role from the traditional decorator function with its implications of lack of linkage between environment and instruction to a role encompassing a design function in which there was an articulated linkage between environment and instruction.

Many have identified the determining factor in a teacher's ability to replicate a prescribed program as her awareness of the developmental theory underlying the program design (Evans, 1971; Henderson, 1971; Klein, 1973; Mayer, 1971; Weikart, 1972a). A logical inference from the previous statements appears to be that programs with different theoretical bases will have different prescribed linkages between environment and learning. The context for learning, environmental setting, is the result of a deliberate design implementation derived from the program's theoretical orientation.

Examples of Environmental Setting in Preschool Programs

The next sections will describe the developmental principles underlying each of the three major preschool program perspectives, and then present specific examples from program descriptions of environmental setting practices evidenced by programs included in the perspective. The specific examples are presented in table format to aid comparison of environmental setting practices within the perspective.

Behaviorist preschool programs. Behaviorist principles of development have been summarized in several sources. While different preschool programs may represent slightly different degrees of emphasis placed on any one principle, the principles are common to all programs in this perspective. The principles are:

> Development consists of progressive changes in the observable behavior of an individual as shaped by his environment over time. Basic unit is the stimulus-response (S-R) connection which is maintained by continuing reinforcement from the environment (EPIE Report, 1972, p. 15).
>
> Development is the accumulation of discrete "learnings" over time, or as the cumulation of discrete combinations of stimuli and responses, with the responses becoming progressively more complex as the individual achieves higher orders of learning and with the simpler (more basic) patterns being prerequisites for the achievement of higher order response patterns.
>
> Stress on perceptual-motor and verbal learning (paired associates--SR bondings, chains or series, definitions, rules, verbal explanations) to equip individuals to deal with the problems of living (Ibid., p. 17).

Three widely disseminated preschool programs which were designed using these principles are Behavior Analysis (Bushell, 1973; Bushell, Wrobel and Michaelis, 1968; Model Programs, 1970), Engelmann-Becker (Bereiter and Engelmann, 1966, 1973; Engelmann, 1969; Moskovitz, 1968), and the Primary Education Project (McGowan, 1971; Resnick, 1967, 1970; Resnick and Wang, 1969). Intensive review of the published curriculum guides and program descriptions in each of the preceding program sources resulted in the culling of several inferences and implications regarding a "behaviorist" prototype environmental setting. See Table 2.

It was not the intent of this review to determine what consensus would be for specific environmental setting aspects, but rather to include as many conceptually compatible evidences of behaviorist environmental setting as possible. The resulting tabular profile of behaviorist programs illustrates that a conceptually coherent picture of behaviorist environmental setting practices can be identified.

Table 2

Behaviorist Profile for Environmental Setting

	Behavior Analysis	Engelmann-Becker	Primary Education Project
Accessibility	--teacher decides which materials will be out --child's behavior contingency for material availability	--instructional materials controlled physically and visually by teachers	--materials prepackaged in boxes which children can reach --teacher prescribes materials for children
Configuration	--time out areas separate --reinforcement areas separate --small group areas screened off	--small group areas --teacher always central focus of seated groups	--small group areas --provisions for individual work without distraction --provision for individual testing without distraction --free play area separated from work area
Instability	--set periods in the daily schedule --awareness of time very high for initiation and duration of activities --same schedule every day	--set periods in the daily schedule --fast pacing of activities --same schedule every day	--set periods in the daily schedule --same schedule every day

Table 2 (Continued)

	Behavior Analysis	Engelmann-Becker	Primary Education Project
Complexity	--activities proceed from simple to complex, always near the child's present skill level	--small steps of work --heavy demand on children--quantity of work high	--small steps of work --single concept at a time --activities always fit child's present skill level

Cognitive preschool programs. The developmental principles of Piaget underlie the preschool programs which have a cognitive orientation. While different programs represent different shades of interpretation of Piaget's developmental theory, the basic principles hold for all programs in this perspective. The basic principles are:

> 1. Learning is a process of construction from inside the organism.
> 2. Learning takes place in a longitudinally coherent way.
> 3. Learning takes place within the general framework called "intelligence" (Kamii, 1972, p. 117).

In applying these assumptions to educational programs the:

> Stress [is] on finding order & relationships: classification, seriation, generalizations, through the performing of concrete (and later, formal) operations, to help equip the individual with needed cognitive structures (EPIE Report, 1972, p. 17).

Three widely disseminated preschool programs which were developed using these principles were Cognitive-Developmental (Weikart, Rogers, Adcock and McClelland, 1971), Ypsilanti (Kamii, 1972, 1973; Kamii and Sinclair, 1970), and Responsive Environment-Autotelic Discovery (McAfee, 1972; Nimnicht, 1972, 1973; Nimnicht, McAfee and Meier, 1969). Intensive review of the published curriculum guides and program descriptions from each of these program sources resulted in the culling of several inferences and implications regarding a cognitive prototype environmental setting. See Table 3. It was not the intent of this review to determine what consensus would be for specific environmental setting aspects, but rather to include as many conceptually compatible evidences of cognitive environmental setting as possible. The resulting tabular profile of cognitive programs illustrates that a conceptually cohesive thread can be identified in all three programs.

Maturational preschool programs. The developmental principles underlying the programs in the maturational perspective are:

Table 3

Cognitive Profile for Environmental Setting

	Cognitive-Developmental	Kamii-Cognitive Program	Responsive Environment
Accessibility	--too many materials are confusing--some selection by teacher with regard to quantity and developmental level	--all items out can be used by children --teacher puts out materials to cover wide range of developmental/creative activities	--items stored so that those items on display will be enjoyed and discovered without competition from other items --everything within reach is okay for children to use
Configuration	--areas have definite functions --room arrangement automatically involves child	--materials often grouped by size, category or purpose --areas conducive to individual children working near each other and socializing	--alcoves for small groups --special areas for specific activities --environment arranged to minimize discipline problems
Instability	--children encouraged to plan ahead --daily routine is chief means of implementing curriculum in temporal area	--daily schedule helps children participate in a variety of activities--some required, some not --individual activity period is longest segment so children can pursue choices	--long periods of time where children choose and pursue activities --daily schedule flexible

Table 3 (Continued)

	Cognitive-Developmental	Kamii-Cognitive Program	Responsive Environment
Instability (Continued)	--invariance of routine gives sense of predictability --group times and individual times		
Complexity	--materials cover range of skills --most materials focus on one concept	--socio-dramatic play helps child construct his knowledge --children determine complexity of activity by choice	--wide range of materials at each level since children choose within levels

> Development consists of the unfolding, or maturing, of genetically programmed patterns of behavior which are based upon the presence of growing physiological structures (EPIE Report, 1972, p. 15).
>
> Stress [is] on the individual expression and creativity within a context of activity (play for young children) which facilitates the unfolding of knowledge and skills and the addition of specifics (Ibid., p. 17).

Three widely available preschool programs developed using these principles were Traditional Nursery/Vintage Head Start (Berson, 1967; Pitcher, Lasher, Feinburg and Hammond, 1965; Weikart, 1972b), Bank Street (Biber, 1970; Biber, Shapiro, Wickens and Gilkeson, 1971; Niemeyer, 1965; The Demonstration School, 1969), and Educational Development Corporation (Armington, 1968; Bussis and Chittenden, 1970; Cazden, 1969; L. Weber, 1971). Intensive review of the published curriculum guides and program descriptions from each of the preceding program sources resulted in the culling of several inferences and implications regarding a maturation prototype environmental setting. See Table 4. As before, it was not the intent of this review to determine what consensus would be for environmental setting aspects, but rather to include as many conceptually compatible evidences of maturational program environmental setting as possible. The resulting tabular profile of maturational programs illustrates that a conceptually cohesive thread can be identified in all three programs.

Comparisons of Preschool Programs

An examination and comparison of the program operation manuals for various programs is one approach to studying differences in environmental setting. A less exhaustive, but convincing supportive approach, is to look at the results of comparative program evaluations and program descriptions recorded by interested observors (Butler, 1970; Evans, 1971;

Table 4

Maturation Profile for Environmental Setting

	Traditional Nursery/ Vintage Head Start	Bank Street	Educational Development Corporation
Accessibility	--children can easily select and reach materials --attractive displays	--current materials are accessible --returning materials is important part of program	--materials within easy reach --materials selected to fit children's interests --children can ask for materials needed to complete projects
Configuration	--interest centers and activity areas defined by equipment, materials --areas for large group meetings, indoor active play	--clearly marked areas for activities --variety of areas --main artery in-classroom links areas --adequate space within areas for specific activities	--provisions for individual, small and large groups --general areas for specific activities --large, roomy, easy to move around
Instability	--daily schedule flexible but regular routines observed	--temporal organization is implied by functions areas serve at different times of the day --activities' schedule in regular sequence--	--schedule is modular with varying blocks of time

Table 4 (Continued)

	Traditional Nursery/ Vintage Head Start	Bank Street	Educational Development Corporation
Instability (Continued)		length of activity may vary	
Complexity	--wide variety of unstructured materials available	--wide variety of materials selected by interests of children, potential for multiple uses --play materials which facilitate role-playing on many levels	--wide variety of materials selected by interests of children

Maccoby and Zellner, 1970; E. Weber, 1970). While these program descriptions do discuss environmental setting differences among programs, they are not and were not intended to be experimentally rigorous. Hence, they only support differences among programs on a subjective or expert judgment level.

Planned Variation was a formal, federal effort to document systematically and rigorously and to evaluate the similarities and differences among selected available Head Start prototype programs. The Interim Report on Planned Variation (Bissell, 1971) reported that for purposes of analyses, the individual programs studied were grouped under three headings representing the theoretical orientation of the program with respect to children's learning and instruction. The three categories (preacademic, cognitive discovery, discovery) used correspond in conception to the three developmental theory categories previously discussed (behaviorist, cognitive, maturational).

Results of the first year data analysis (Bissell, 1971) documented the existence of differences among the three groups of programs with respect to teacher behavior and classroom environment experiences. Further, Bissell (1971) concluded that experiences and classroom environment differed as a function of the model's theoretical orientation.

Gordon (1972) using two programs from each of the Planned Variation categories, catalogued and charted instructional situation differences among the six programs. Instructional situation was vaguely defined as the physical-contextual milieu in which a program operated. Elements given in Gordon's (1972) charts as components of instructional situations indicate that Gordon defined instructional situation operationally in a manner which is supportive of, but not congruent with the present study's definition of environmental setting.

Architectual Comparisons of Environmental Setting

In an interesting coupling of disparate fields, both architects and educators emphasize the necessity of physical environment and program goals being interrelated (Loeffler, 1967; Mattick and Perkins, 1973; Sarnoff, Sarnoff and Hensley, 1972; Waligura, 1971).

> When space is good, the content and organization (and absence of special problems) help achieve goals in two ways. On the one hand, the space makes it easy for goal-related behavior to occur; and on the other, the space itself neither forces behavior which is contrary to goals, nor does it force the solution of otherwise, unimportant or inappropriate goals as a means of coping with space-induced negative behavior (Kritchevsky, Prescott and Walling, 1969, p. 24).

Two large scope attempts have been made by architects to relate preschool program goals to the architectual planning aspects of preschool rooms and buildings (Osmon, 1971; Waligura, 1971). Both efforts took considerable cognizance of the existence of diverse preschool program models, stating that their intent as architects was not to decide the relative merits of one program type over another, but rather to provide design guidelines which would facilitate all programs. Each of the studies used the three general categories of preschool program models based upon developmental theory, behaviorist, cognitive and maturational; and developed design guidelines for programs within these developmental frameworks.

Osmon (1971) took a global viewpoint in discussing environmental setting for preschool programs, summarizing the issues which must be addressed by program planners, teachers and designers in fitting existing space to the needs of various patterns of programs. Osmon's (1971) approach was to assume that centers would not be built from scratch and that compromises with existing facilities would be a necessity. Therefore, he spent considerable effort explicating the relationship of various program goals to space considerations with the hope that those in charge of preschool programs would be able to replicate his process approach to design solutions. Table 5 reports Osmon's design considerations which are pertinent to the aspects defined by the instrument scales.

Waligura's approach also utilized the three categories of preschool programs determined by developmental theory orientation, but seemed to assume that the majority of the document users would be those concerned with designing facilities from scratch. Detailed design specifications were given for various components of the facility so that an architect with no prior working knowledge of preschool program needs would be able to relate space considerations to program needs. Table 6 presents selected information from Waligura (1971) related to the four scales developed in this study.

Summary

Preschool programs can be classified according to the program's underlying developmental theoretical orientation on instruction: behaviorist, cognitive, and maturational. The literature comparing preschool programs representing varying theoretical orientations strongly suggests that differences in environmental setting which are related to the theoretical orientation of the programs can be discerned and observed.

Table 5

Osmon Composite Program Profiles for Environmental Setting

	Structured	Cognitive	Free Choice (Maturational)
Accessibility	--items do not need to be child sized since teacher controls program	--items available as needed in sequences or fitting developmental level	--in terms of size of materials, recognize the child's dimensional characteristics --all materials need to be displayed so that they are convenient and attractive --recycling or putting materials back is way to maintain accessibility
Configuration	--space structures the child's world --privacy and enclosure needed for group lessons --teacher focus of space --teacher paths are major paths in center	--areas somewhat restricted, children encouraged to stay with activity for awhile --space is not multiused but may be changed weekly to aid in sequencing materials	--convenience of work areas to one another --circulation paths for children among areas --portable storage units --internal, functional integrity of activity spaces
Instability	--rules and time govern activities	--tempo slow and contemplative	--lineal time schedule replaced by free play --active tempo, fast-through

Table 5 (Continued)

	Structured	Cognitive	Free Choice (Maturational)
Complexity			--determined by child's choice of materials and activities

Table 6

. Waligura Composite Program Profiles for Environmental Setting

	Behaviorist	Cognitive	General (Maturational)
Accessibility	--few activities for choice --many activities not accessible to child --order and unclutteredness	--formal activities with teacher --adequate storage	--working space and storage units near each other --lots of opportunity to handle environment
Configuration	--moveable dividers for activity areas, areas are always delimited --close structure directs child to activities	--comfortable seating arrangements for work --interest areas	--variety of surfaces and textures --small group centers
Instability	--highly regulated		--time to sit and look at things
Complexity		--activities graded in difficulty and sequence	

Links between Home and Preschool

Environmental Setting

Parents, in deciding if their child will attend a preschool program and then deciding which program the child will attend, establish a connection between home and preschool. Given that the opportunity may exist in some communities for parental selection among various preschool programs, to what extent do parents with different parenting style deliberately choose different preschool programs?

Research on this question is vague and not primarily directed at environmental setting variables. As part of a larger study on cognitive performances in children enrolled voluntarily in two preschool programs, Dreyer and Rigler (1969) hypothesized that there is a selective process determining the kind of parents who choose to send their preschool age children to a Montessori rather than a traditionally-oriented nursery school. Their sample included both mothers and fathers of children enrolled in one Montessori program and one traditional program (N = 38). All the parents lived in the town in which the two programs were located. The mailed questionnaire was a composite battery of items from several published scales. Reliability, validity and control of acquiescence and social desirability response sets were not reported for the composite instrument.

No significant differences between the two parent groups were found for any of the scales separately or for the total battery. Dreyer and Rigler (1969) suggested that the initial homogeneity of their two samples with respect to socio-economic class may have influenced the results. Schaefer (1972) stated that socio-economic class is a fairly reliable indicator of parental attitude as measured by current instruments. One explanation for the results could be that both parent samples were drawn from the same population.

The previously discussed use of attitudes as the unit of analysis in assessing parenting patterns raises a stronger alternative explanation for the nonsignificant findings of the Dreyer and Rigler (1969) study. Differentiation between the two groups of parents might have been substantiated if a more appropriate and sensitive index of parenting behaviors rather than parental attitudes had been used.

The research literature on Head Start offers one additional source of information pertinent to the issue of whether parents with different parenting styles deliberately choose different programs. Parents of children enrolled in Head Start rarely had a choice of type of preschool program since external community forces were primarily responsible for most early program implementation. At first, children could not participate in Head Start unless their parents (usually mother) agreed to attend parent sessions. The parent participation requirement confounded the interpretation of any findings of differences between parents of Head Start and non-Head Start children since parents who chose to participate along with their child's program entrance were a biased sample of all parents. Lazar and Chapman (1972) reported participating parents to be a very small percentage of the total group of parents further weakening any conclusions regarding parent differences drawn from data obtained solely from participating parents.

Summary

The literature reviewed supports the conclusion that there are, indeed, differences among preschool programs and that these differences include differences in environmental setting which are linked to theoretical orientation of the program. Differences among parents have been described in many studies but no conclusions can be reached concerning patterns of parental differences related to theoretical orientation of parental child-rearing.

Environmental setting is a variable common to home and preschool. The theoretically linked differences observed in environmental settings in preschools may provide a means to describe the patterns of differences observed in environmental setting in homes. While no instruments presently exist to assess environmental setting in home and preschool, there is a large body of literature from which to draw information and implications in constructing items for instrument scales.

CHAPTER III

INSTRUMENT DEVELOPMENT

General Introduction

Environmental setting aspects common both to home and preschool were identified. Scales were developed to assess four aspects of environmental setting: accessibility, configuration, instability and complexity. Scale development is described in the following sections of this chapter. The validity study conducted with the final scales is described in Chapter IV.

Generation of Items

Items for each of the four scales were generated concurrently. Literature describing homes was reviewed, and items were generated from textual descriptions found in the studies. Existing instruments which were directed at behaviors and concepts related to parental behaviors and preschool programs were reviewed, and items which were pertinent to the present scale definitions were adapted from them. The descriptive literature on preschool programs was reviewed, and items were written which reflected environmental considerations in program design and implementation. All literature reviewed was described and cited in Chapter II. As sources were reviewed, items and information were recorded on an Item Generation Form which is included in Appendix A.

Fourteen homes were observed, and mothers were interviewed regarding practices related to the definitions of the instrument scales. Homes were selected to include a variety of dwelling types and income levels. Also, ten preschool programs were observed in operation, and four teachers were interviewed regarding program practices related to the instrument scales. Information and comments from observations and interviews were recorded on the Item Generation Form.

Item writing. Individual items were written as statements which followed Edward's (1957) suggestions for writing and editing items. Each item described an observable characteristic of environmental setting. Items were simply worded and contained no more than one idea. Technical terms and phrases were avoided. A special attempt was made to include phrases and wording which would apply equally well to descriptions of home and of preschool environments. To control for acquiescence response bias, many items were worded in both positive and negative form.

Item pool. An initial pool of approximately 400 items was generated of which about 100 items were designated for each of the four scales. Items in the initial pools for each scale were sorted to remove duplicate or similarly worded items. A second sort was used to remove items which were ambiguous in wording or in relation to the scale definition. An outside judge was asked to indicate which of the remaining items seemed unrelated to scale definitions, and several items were removed on the basis of that judgment. This left approximately 35 - 40 items per scale. Items remaining in each scale pool were sorted into positive and negative groups with approximately 20 items in each group. From this sorted pool of positive and negative items for each scale, 20 items were selected for inclusion in the preliminary scales using face validity criteria.

Format. The eighty items were arranged in random order in a single questionnaire. A Likert-type response format preceded each item. Respondents were asked to indicate by circling a number the degree to which each statement represented an accurate description of their home/classroom. A sample item with response format appears below:

1 2 3 4 Toys are stored near play areas.

The first page of the questionnaire contained instructions for use of the questionnaire and an explanation of the response key. The response key was repeated at the top of all subsequent pages of the questionnaire. The response key was worded:

KEY:

1 - inaccurate description of my home
2 - somewhat inaccurate description of my home
3 - somewhat accurate description of my home
4 - accurate description of my home

On questionnaires completed by teachers, the instructions and response key were rephrased to change the word "home" to "classroom." At the end of the questionnaire, respondents were asked for comments about the items and for an estimate of the time required for completion of the questionnaire. A copy of the preliminary questionnaire is included in Appendix B. Each item in the questionnaire is identified by scale and direction of wording. This information did not appear on the questionnaire which was distributed.

Preliminary Instrument Trial

Sample

A sample of mothers of preschool children and nursery school teachers was located through the cooperation of preschool program directors. Four schools were in the sample. Two of the schools in the sample were privately funded, and the other two were state and federally funded. The children attending the schools came from a broad range of income levels. A total of 115 mothers of preschool children and seven teachers were in the sample. Fifty-one completed questionnaires were returned.

Procedures

Each child enrolled at the schools received a cover letter and questionnaire to take home to his mother. The cover letter identified the investigator, stated that permission of the school director had been obtained, and requested the mother to complete the questionnaire. The children returned the questionnaires to collection boxes placed outside their classrooms. The teachers and school directors arranged to send questionnaires home to mothers of children who were absent on the day of distribution. Signs were posted at the entrances to the classrooms reminding mothers to return the completed questionnaires. Most mothers saw the signs as car-pool responsibilities brought them into the school at least once a week. Children at one of the schools received reminder slips from the teacher when questionnaires were not returned within the week. Parents at another school were verbally reminded by the director to return the questionnaires. Teachers were given the questionnaire by the investigator on a visit to the school. At the end of the two week period following initial distribution of the questionnaires, all completed questionnaires were collected.

Item Analysis

In order to select items for inclusion in the revised scales, item analyses were performed. Two procedures were carried out. First, based upon total scale scores, the sample was divided into high and low contrast groups consisting of the upper and lower 27 percent of the sample. Contrast groups were established separately for each scale. On each item, mean scores were computed for both contrast groups and the difference between means was compared using a t test. The results of the t test were used as a rough index of the discriminating power of the item. As a second procedure, an adjusted item-total correlation was computed for each item. An item-total correlation is a correlation of an individual item with the total scale score. It is adjusted with a correction formula to remove the bias of adding that item score to the total with which it is being correlated. The adjusted item-total correlation is an index of the degree to which the item is measuring the same aspect as the total scale, and it is used as an indication of item validity. Item analyses were performed using the program LIKRT at The Pennsylvania State University Computation Center.

Information on individual items from the two item analysis procedures was used to select items for the revised scales. In using the item analysis information, criteria for selection were at best rough guidelines. Initially, all items with adjusted item-total correlations lower than .30 were dropped. In addition, items with _t_s lower than 2.0 were dropped as these items were not discriminating between the extreme contrast groups. For items which met one criterion, but not the other, a selective judgment was made by the investigator about whether to drop the item. Items which correlated more highly with a scale other than the one in which they were scored were eliminated. Most items which had this difficulty also had low _t_s.

Coefficient alpha was computed for each scale. Coefficient alpha is an index of scale reliability used when data is polychotomous and not dichotomous. Similar conceptually to the Kuder-Richardson formula for internal consistency reliability, coefficient alpha is the average of all possible split-half reliability coefficients. Because coefficient alpha is a measure of internal consistency, it is maximized when all items form a unidimensional scale. Since items which correlate poorly with the scale total do not measure the same dimension, alpha is increased by removing such items.

Several combinations of items were tried for each scale, and coefficient alpha was computed for each run. The final combinations of items selected for the revised scales were the sets that maximized coefficient alpha for each scale. Table 7 shows the coefficient alpha for each of the scales at the end of this procedure. Because of the repeated scale revisions using the same data set, these reliability estimates capitalize on chance and tend to overestimate scale reliability.

Revised Scales

In order to improve the reliability of the scales, steps were taken to revise the scales. Additional items were written for each scale following the item generation procedures described previously. Items generated were worded similarly to those which had proven effective in the test of the preliminary questionnaire. As items were written, particular care was taken to balance the positively and negatively worded items in each scale to control for acquiescence response set. The items generated also expanded the content domain of each scale so that each scale more closely conformed with the full definition of the scale domain. Appendix C includes a copy of the revised questionnaire. Individual items are identified according to the scale in which they belong and indication is given of the direction of wording of the item.

Sample

A sample of mothers of preschool children and nursery school teachers was located through the cooperation of preschool program directors. Five

Table 7

Scale Reliabilities After Item Selection

Scale	Items	Coefficient Alpha
Accessibility	12	.727
Configuration	16	.826
Instability	6	.656
Complexity	8	.704

schools were in the sample. One of the schools operated using federal funds. With the exception of that school, the children attending the programs came from middle to upper-middle class homes. A total of 114 mothers of preschool children and nine teachers were in the sample. Sixty-one questionnaires were returned. There was no overlap in respondents between the first and second samples.

Procedures

The same procedures described previously were used in distributing the questionnaires. Questionnaires were sent home with children and were returned to a collection box at school. At the end of a one-week period following initial distribution of the questionnaires, all completed questionnaires were collected. Teachers were given the questionnaire by the investigator on a visit to the school.

Item Analysis and Item Selection

As before, two item analysis procedures were carried out: for each item an adjusted item-total correlation was computed, and a *t* test was run on the differences between means for the high and low contrast groups on that scale. Criteria for selection of items for the final scale were the same as described previously.

Several combinations of items were tried for each scale, and coefficient alphas were computed for each run. Table 8 gives the coefficient alphas for each of the scales at the end of this procedure.

Final Scales

The final form of the questionnaire consisted of four scales. The Accessibility Scale included 14 items, 8 negative and 6 positive. This scale assessed the ease with which a child can interact with his

Table 8

Final Scale Reliabilities

Scale	Items	Coefficient Alpha
Accessibility	14	.650
Configuration	12	.801
Instability	12	.700
Complexity	13	.724

environment. The Configuration Scale in final form contained 12 items, 6 negative and 6 positive. The Configuration Scale described the size, scale, function and location of environmental settings in home and preschool. The Instability Scale contained 12 items, 5 negative and 7 positive. The Instability Scale measured the patterned use of time periods and measured the time-related functions of physical areas. The Complexity Scale assessed the extent to which the environment fits the child's mental and physical skills. It contained a total of 13 items, 7 negative and 6 positive. Appendix D contains item listings for each of the four scales.

The final scale items were arranged in random order on a single questionnaire. A copy of the final questionnaire is included in Appendix E. A total of 53 items appear in the final questionnaire.

CHAPTER IV

VALIDITY STUDY

General Introduction

Validity refers to the confidence users may reasonably hold that a particular instrument assesses what it sets out to measure. There is no set procedure for the establishment of validity, nor is there ever any point at which an instrument can be labelled with finality as valid. Validity is established for an instrument as the instrument is used with various samples and in various situations in which it improves the users' ability to make decisions or judgments based upon the information derived from respondent's scores.

Validity can be established on many levels. One level of validity is called face or content validity and refers to the degree to which the instrument appears to measure what it says it does. This type of validity is frequently determined by having people familiar with the content build the instrument or by having experts judge the instrument items. To a certain extent, item analysis procedures assess the degree of face validity by giving a correlation which indicates to what extent the individual item correlates with the total scale. Face or content validity reduces to a problem of logical determinism and it is felt that the procedures described in Chapter III for the development of environmental setting scales have ensured an acceptable degree of content validity.

Closely related but far more complex is the issue of construct validity. Construct validity refers to the meaning of the scale scores in terms of the psychological constructs they are said to assess. Of all types of validity, construct validity is the most abstract and the most difficult to determine. The scope of the present study is such that no definitive judgments can be made concerning the ultimate construct validity of the scales, but certainly the establishment of construct validity underlies attempts to establish other types of validity for the instrument, and confidence in the construct validity of the scales will increase as positive evidence from other validity studies accumulates.

Another form of validity, criterion validity, is defined as the extent to which users have confidence that the instrument predicts certain scores on a criterion variable based upon scale scores of the instrument. The validity study described in the following sections is a first step in establishing an indication of criterion validity for the environmental setting scales.

Problem

The four scales of the Environmental Setting Questionnaire were designed to be used with caretakers of two environmental settings: parents and teachers. Therefore, it was necessary to determine that each of the four scales would discriminate between types of homes and preschools known to be different. In Chapter II it was established that there are discriminably different types of preschools and that there are means available to determine which category any particular preschool program represents. The purpose of the validity study was to assess the degree to which the four scales of the Environmental Setting Questionnaire discriminated among the three categories of preschool programs known to differ in environmental setting as an extension of theoretical orientation. The three program categories used were: Maturation (M), Cognitive (C), and Behaviorist (B). The following predictions were made for each scale:

Accessibility Scale: M > C > B

Configuration Scale: M > B

Instability Scale: M > C > B

Complexity Scale: M > C > B

Sample

The desired sample for the validity study was teachers who were currently working in monitored versions of programs operating as Head Start models under Planned Variation. Nine program sponsors of Planned Variation models were contacted by letter and telephone in an attempt to identify a sample of sites and/or teachers currently using monitored model program curricula. In all cases sponsors stated that they were no longer fiscally or administratively responsible for monitoring any preschool programs. Programs which were still using Planned Variation model curricula were doing so at local expense and effort. Most sponsors contacted could not or would not identify sites and/or teachers whom they would guarantee were using model programs.

Since Planned Variation classrooms could not be identified, another sample was obtained. This sample consisted of teachers who were using different theoretical orientations in their preschool classrooms. While preschool programs represented in this sample were not monitored versions of any Planned Variation model, teachers had been encouraged to understand and implement current practices in early childhood education.

The sample consisted of 48 teachers currently working in prekindergarten programs in a major city. Teachers were contacted through the help of the school district's research office. Teachers were asked to self-identify the theoretical orientation of their classroom using the Preschool Program Checklist which appears in Appendix F. Of the sample of 48 teachers, 18 were self-described as behaviorist, 17 were self-described as cognitive, and 13 were self-described as maturation. Teachers remained anonymous.

Procedures

Each teacher in the sample received a packet which contained three items: a cover letter which introduced the investigator and asked for the teacher's help in completing the questionnaire, a copy of the final version of the Environmental Setting Questionnaire, and a stamped, addressed envelope in which to return the questionnaire directly to the investigator. These teacher packets were mailed by the investigator to the appropriate school officials who were to oversee distribution of the questionnaires to the teachers.

Questionnaires were distributed at a meeting held at the end of the school year. Teachers were required to complete the questionnaires and to place them in the envelopes provided. All completed questionnaires were collected at the end of the meeting and were mailed directly to the investigator. No provisions were made for additional instructions to be given to the teachers, and it is not known if any explanations other than what appeared in the cover letter were given.

Results

Questionnaires were scored using the LIKRT program at the Computation Center of The Pennsylvania State University. Scale scores were computed for each respondent. Respondents were grouped according to program category, and means were computed for each category on each of the four scales. An analysis of variance using the ANOVUM program was computed for the means on each of the four scales.

Analysis of variance summary tables are given for each of the four scales: Accessibility scale, Table 9; Configuration scale, Table 10; Instability scale, Table 11; and the Complexity scale, Table 12. Since no significant F test was found for any of the four scales, follow-up analyses to test the predictions made concerning direction of results for each scale were not performed.

Inspection and comparison of program means was done in order to determine if any trends were present in the data. Means for the programs are presented in Table 13. The nearly equal means on the two scales of Instability and Complexity indicate that almost no variation was observed in responses to these two scales. The teachers in the sample worked in a school system which was encouraging but not formally sponsoring different curriculum models, and it is unlikely that many individual teachers had class programs which were equivalent to monitored versions of different approaches to learning. Teachers who are individually effecting curricula within a single school system would be expected to have to follow time schedules which are similar to their colleagues and to use the same materials and supplies as other classes. The lack of school system sponsored variation could make it extremely difficult for individual teachers to acquire the time flexibility and material complexity to implement some model curricula. The nearly equal means for these two scales appear to support this explanation for lack of observable differences among programs on these scales.

There are insignificant trends in the predicted direction for the Accessibility and Configuration scales. Despite the lack of school

Table 9

Analysis of Variance for Accessibility Scale

Source	df	MS	F
Between groups	2	28.04	1.502[a]
Error (within groups)	43	18.67	

[a] $F_{.05} = 3.22$.

Table 10

Analysis of Variance for Configuration Scale

Source	df	MS	F
Between groups	2	34.96	1.047[a]
Error (within groups)	43	33.39	

[a] $F_{.05} = 3.22$.

Table 11

Analysis of Variance for Instability Scale

Source	df	MS	F
Between groups	2	1.506	.086[a]
Error (within groups)	43	17.556	

[a] $F_{.05} = 3.22$.

Table 12

Analysis of Variance for Complexity Scale

Source	df	MS	F
Between groups	2	1.929	.086[a]
Error (within groups)	43	22.564	

[a] $F_{.05} = 3.22$.

Table 13

Program Means on Environmental Setting Scales

Scale	Behaviorist	Cognitive	Maturation
Accessibility	37.59	38.38	40.31
Configuration	33.18	35.62	35.85
Instability	37.00	36.50	37.08
Complexity	31.53	32.06	31.38

system sponsored variation, teachers can be expected to have some control over the accessibility of materials and the configuration of space within their classrooms. The observed trends in the means appear to support tentatively this distinction among scales.

In order to examine scale profiles for each of the three programs, means were converted to standard scores to adjust for variation among scales in maximum possible score. Table 14 presents the scale profiles for each of the three programs. Inspection of the scale profiles for programs indicates again the nearly equal means of all programs on the Instability and Complexity scales, and the predicted trends in means for the Accessibility and Configuration scales. Based upon theoretical predictions, the Maturation programs should score higher on all scales than the Cognitive or Behaviorist programs. While not statistically significant, the differences among means were in the predicted direction.

The lack of statistically significant results for the data analysis described so far led the investigator to explore further in an attempt to understand the results of the study. In computing scale reliabilities using coefficient alpha, questions arose about the reliability of the data from this sample. Scale reliabilities for the validity sample are presented in Table 15. Two of the scales, Configuration and Complexity, have reliabilities which are acceptable but not high for making predictions for criterion groups. The other two scales, Accessibility and Instability, have reliabilities which are barely adequate for these purposes. This indicates that the data from the validity sample were unreliable and significant results on the analysis of variance would have been most difficult to achieve.

Table 14

Profile of Standardized Program Means

Program	Accessibility	Configuration	Instability	Complexity
Maturation	+.39	+.19	+.06	-.06
Cognitive	+.06	+.15	-.09	+.08
Behaviorist	-.24	-.28	+.04	-.03

Table 15

Validity Sample Scale Reliabilities

Scale	Coefficient Alpha
Accessibility	.392
Configuration	.698
Instability	.489
Complexity	.599

Summary

The validity study was designed to assess the degree to which the four scales of the Environmental Setting Questionnaire discriminated among three categories of preschool programs known to differ in environmental setting as a function of theoretical orientation. Low scale reliabilities were observed for the validity sample data. Analysis of the means of the three programs produced insignificant results, but data trends were in the predicted direction.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Scales were developed to assess four aspects of environmental setting in home and preschool: Accessibility, Configuration, Instability and Complexity. As part of the validation procedures, the four scales were used to discriminate among three types of preschool programs known to differ in environmental setting as extensions of the program's theoretical orientations.

Conclusions

The four scales developed in this research are brief (average of 12 items per scale), with simply worded items accompanied by an easy to use Likert response format. Total administration time is approximately 15 minutes. All of the scales have suitable reliability for the purposes for which they were intended. Substantial face validity was established, but the results of the validity study do not allow for any judgments to be made concerning criterion validity for the scales. Discussion of results and conclusions related to scale reliability and validity follow.

Reliability

The initial reliabilities established for each of the four scales following the two pilot test versions of the questionnaire were sufficiently high to place statistical confidence in the scores of respondents. While only one of the four scales developed exceeded the typical criterion level of .80 for coefficient alpha, the reliabilities of all four scales as established through the pilot tests of the scales in the instrument development phase were reasonable for the kind of scales developed and the purposes for which they were intended. Scales were designed to assess equally well both home and preschool settings. Choice of language and phrasing was made so that both groups of respondents (mothers and teachers) would find items which were descriptive of their settings. Also, the scales were designed to cover the range of content found in the continuum of theoretical orientation for preschool programs from behaviorist to cognitive to maturation. With the constraints on language and the obvious need for a range of content in each scale, it was unlikely that any of the scales would have the tight unidimensionality necessary for a high coefficient alpha. Scales which do have high coefficient alphas often achieve unidimensionality through subtly worded repetitions of the same item. The obtained reliabilities of the scales indicate that predictions can be made with some degree of confidence for groups of respondents. For example, in deciding what kind of program to implement in a neighborhood or recommending a category of program that appears to be congruent with parenting style, these scales have sufficient reliability. The scales have only marginally adequate reliabilities for the purposes of assessment of individual cases, but the scales were not designed for this purpose.

The scale reliabilities computed on the validity sample data are low, and are barely acceptable for making predictions about groups of respondents. Since the scales which were used with the validity sample had already been established as reliable for intended purposes, it seems plausible to look for situational factors in the validity study which may have confounded scale reliabilities.

The Environmental Setting Questionnaire was administered to the validity sample under less than desirable conditions. Respondents were required to fill out questionnaires at a meeting at the end of the school year and were unlikely to have had much motivation to be careful in filling out the questionnaire. The investigator was not allowed to be present to explain the questionnaire and to establish rapport with the respondents. Examination of returned questionnaires indicates that many respondents ignored items at the bottom of each page, numbers were circled in haste on the response scales, and many items were crossed off and not answered.

Given the administrative situation which prevailed when the questionnaires were administered to the validity sample, the resulting low scale reliabilities can probably be attributed more to situational factors than to scale defects. Reliability results such as obtained with the validity sample do cast doubts on the working reliability of the scales and suggest that careful administration is advisable in the future.

Validity

The theoretical rationale for the development of the four environmental setting scales was drawn from observed differences in implementation of environmental setting in preschool programs which used model curricula from each of the three points of view: behaviorist, cognitive and maturation. The range of content in each of the four scales was designed to include the practices within and among each of these three points of view. The extensive use of descriptions of program implementation for programs exemplary of the three points of view assured an acceptable degree of content validity for the scales.

Using operating preschool programs as criterion points, an attempt was made to establish criterion validity for the scales. The validity study used as respondents teachers who were currently working in classrooms representative of the three theoretical points of view of program curricula.

Results of the reported validity study are inconclusive. The low scale reliabilities for the validity sample indicate that the possibility of making a Type Two error in the analysis of variance was quite high. A Type Two error would lead to false rejection of the null hypothesis that there are no differences among programs. Also, the teachers' self-identification of program orientation leads to looser criterion specification than if theoretical emphasis of programs were identified by some outside source or monitoring agency.

Summary

The presence of both unmonitored program identification and marginally reliable data lead the investigator not to reject the scales as invalid. The findings of this study are hopeful, but inconclusive. Trends in the data and face validity justifiably warrant other attempts to establish criterion validity before dismissing the scales as invalid for purposes of group prediction.

Recommendations

Future criterion validity studies should carefully consider close supervision of scale distribution and administration. Attempts should be made to specify more precisely program orientation either through an outside monitoring agency or through a double-check procedure on teachers' self-identification of program emphasis. This double-check procedure could be systematic observation of the teacher's classroom to corroborate program emphasis or an objective questionnaire assessing the teacher's viewpoints on learning. Replication of the criterion validity study is strongly recommended.

Alternative approaches to the establishment of validity should be pursued. One approach might be to explore further the literature on personality variables in order to determine if some personality variables appear to be related to the construct definitions of the environmental setting scales. If such variables exist, scores on personality measures of those variables should correlate with scores on the environmental setting scales.

Following proper validation of the scales, steps can be taken to use the scales in applied studies. At that point, homes and preschools can be matched on dimensions of environmental setting and information gained as to the benefit of various levels of match on children's performance in preschool programs.

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APPENDIX A

ITEM GENERATION FORM

Source ______________

Item Generation Form

Configuration	Instability	Complexity	Accessibility

APPENDIX B

PRELIMINARY ENVIRONMENTAL SETTING QUESTIONNAIRE

The following code has been used to indicate scale designation and direction of wording for items on the preliminary questionnaire. This information did not appear on instruments which were distributed to mothers or teachers.

Scale	Code
Accessibility	A
Configuration	C
Instability	S
Complexity	X

Direction of Wording	Code
Positive	+
Negative	0

Environmental Setting Questionnaire

This questionnaire is designed to provide a description of your preschool child's home environment. It consists of a set of statements which describe home environments. Each statement is preceded by a set of numbers which you will use to indicate how accurately the statement describes your preschool child's home environment. The key below explains what each number means.

Key: 1 - very inaccurate description of my home

2 - somewhat inaccurate description of my home

3 - somewhat accurate description of my home

4 - very accurate description of my home

To complete the instrument, read each statement and circle a number for each statement. For example:

1 2 [✓ 3] 4 Children play at home every day.

Remember to circle the number which best represents how accurately the statement describes your preschool child's home environment.

* *

A--0 1. 1 2 3 4 Children are not allowed to touch some things.

C--0 2. 1 2 3 4 Furniture has to be moved for some play activities.

X--+ 3. 1 2 3 4 Play activities vary in difficulty.

S--+ 4. 1 2 3 4 Toys and play equipment are permanently set up in some areas.

A--0 5. 1 2 3 4 Adults tell children when they can play.

C--0 6. 1 2 3 4 Children have to play around tables and chairs.

X--+ 7. 1 2 3 4 Play activities are challenging for the child.

S--+ 8. 1 2 3 4 Furniture arrangement in play spaces doesn't change.

KEY: 1 - very inaccurate description of my home
2 - somewhat inaccurate description of my home
3 - somewhat accurate description of my home
4 - very accurate description of my home

* *

A--+ 9. 1 2 3 4 Children are free to move around the house.

C--+ 10. 1 2 3 4 Open space is available for indoors active play.

X--0 11. 1 2 3 4 Children are shown how to use play materials correctly.

S--0 12. 1 2 3 4 Play activities change every day.

A--+ 13. 1 2 3 4 Toys are stored in easy to reach places.

C--+ 14. 1 2 3 4 Play activity areas are clearly defined.

X--0 15. 1 2 3 4 Toys fit the child's skill level.

S--0 16. 1 2 3 4 New toys appear frequently.

S--+ 17. 1 2 3 4 Play spaces always look the same.

X--+ 18. 1 2 3 4 Toys and games are sometimes complicated.

C--0 19. 1 2 3 4 Children play in areas which are used for other things.

A--0 20. 1 2 3 4 There are places where children are not allowed to play under any circumstances.

S--0 21. 1 2 3 4 Daily routines vary greatly from day to day.

X--0 22. 1 2 3 4 Children are told how to use some play materials.

C--+ 23. 1 2 3 4 Play space is large enough to accommodate the toys children have.

A--+ 24. 1 2 3 4 Children have chairs which are sized for them.

S--+ 25. 1 2 3 4 Children do all their playing in the same place.

X--+ 26. 1 2 3 4 Many toys are used in the same game.

C--0 27. 1 2 3 4 Other people use the places where children play.

A--0 28. 1 2 3 4 Children know what kind of play is allowed at home.

S--0 29. 1 2 3 4 Children are surprised frequently.

X--0 30. 1 2 3 4 Toys are simple for children to use.

KEY: 1 - very inaccurate description of my home
2 - somewhat inaccurate description of my home
3 - somewhat accurate description of my home
4 - very accurate description of my home

* *

C--+ 31. 1 2 3 4 Children can tell where it's okay to play.

A--+ 32. 1 2 3 4 Children select their own play materials.

A--0 33. 1 2 3 4 Closed storage areas are used to store some toys.

C--0 34. 1 2 3 4 Children play in the same areas where adults work.

X--+ 35. 1 2 3 4 Play materials are sometimes used in unplanned ways.

S--+ 36. 1 2 3 4 Children know when it's time to play.

S--0 37. 1 2 3 4 Children's play is frequently interrupted by adults.

X--0 38. 1 2 3 4 Children have to know how to play with a toy before they can use it.

C--+ 39. 1 2 3 4 Children often play where adults can't see them.

A--+ 40. 1 2 3 4 Children can reach hooks and hangers for their coats.

A--+ 41. 1 2 3 4 All toys are available for play at all times.

C--+ 42. 1 2 3 4 Children have plenty of space for play activities.

X--0 43. 1 2 3 4 Each toy has a special game that is played with it.

S--0 44. 1 2 3 4 Children play with lots of different toys in one play time.

S--+ 45. 1 2 3 4 Play is uninterrupted for long periods.

X--+ 46. 1 2 3 4 Children try different games and toys.

C--0 47. 1 2 3 4 Play areas are small and compact.

A--0 48. 1 2 3 4 High shelves are used to keep toys out of reach of children.

A--0 49. 1 2 3 4 Gates or closed doors are used to keep children out of some places.

C--0 50. 1 2 3 4 Children have no choice as to where they can play.

X--+ 51. 1 2 3 4 Children can play with the same toy in many different ways.

KEY: 1 - very inaccurate description of my home
2 - somewhat inaccurate description of my home
3 - somewhat accurate description of my home
4 - very accurate description of my home

* *

S--+ 52. 1 2 3 4 Children know ahead of time when they are going out somewhere.

X--0 53. 1 2 3 4 Children's playmates are usually their own age.

C--+ 54. 1 2 3 4 Play areas look like play areas.

A--+ 55. 1 2 3 4 Children can touch anything in the room.

A--+ 56. 1 2 3 4 Scissors are out for children to use.

C--+ 57. 1 2 3 4 Children attach names to play areas.

X--0 58. 1 2 3 4 Adults usually suggest familiar games for children to play.

S--0 59. 1 2 3 4 Children never know what they are going to do next.

S--+ 60. 1 2 3 4 Children change activities quickly.

X--+ 61. 1 2 3 4 Children play with children of different ages.

C--0 62. 1 2 3 4 Toys get in the way of adult activities.

A--0 63. 1 2 3 4 Play areas can be used only if supervised by adults.

A--+ 64. 1 2 3 4 Child can find materials to suit any activity he wishes to play.

C--+ 65. 1 2 3 4 Play areas are used only for children to play.

X--0 66. 1 2 3 4 Children usually don't need help in playing games.

S--0 67. 1 2 3 4 Children eat when they're hungry, not by the clock.

S--+ 68. 1 2 3 4 Daily routine is very set.

X--+ 69. 1 2 3 4 Adults often try to structure play activities in novel ways.

C--0 70. 1 2 3 4 Children's play bothers adults.

A--0 71. 1 2 3 4 There are rules about where children can play.

S--+ 72. 1 2 3 4 Food is prepared at the same time every day.

KEY: 1 - very inaccurate description of my home
2 - somewhat inaccurate description of my home
3 - somewhat accurate description of my home
4 - very accurate description of my home

* *

A--0 73. 1 2 3 4 Adults decide which play activities will be available for children.

X--+ 74. 1 2 3 4 Adults help children make up new games.

S--0 75. 1 2 3 4 Old toys are forgotten when new ones appear.

C--+ 76. 1 2 3 4 Children have places where they can leave toys out.

A--+ 77. 1 2 3 4 Paints are available for children to use.

C--+ 78. 1 2 3 4 Children play in a special playroom.

S--0 79. 1 2 3 4 Children rush around from one play area to another.

S--+ 80. 1 2 3 4 Children play with the same toy for a long time.

* *

Thank you for your help.

Did you find the instructions clear?

Was the response format easy for you to use?

About how long did it take you to complete the Questionnaire?

APPENDIX C

REVISED ENVIRONMENTAL SETTING QUESTIONNAIRE

The following code has been used to indicate scale designation and direction of wording for items on the revised questionnaire. This information did not appear on the instruments which were distributed to mothers or teachers.

Scale	Code
Accessibility	A
Configuration	C
Instability	S
Complexity	X

Direction of Wording	Code
Positive	+
Negative	0

Environmental Setting Questionnaire

This questionnaire is designed to provide a description of your preschool child's home environment. It consists of a set of statements which describe home environments. Each statement is preceded by a set of numbers which you will use to indicate how accurately the statement describes your preschool child's home environment. The key below explains what each number means.

KEY: 1 - very *inaccurate* description of my home

2 - somewhat *inaccurate* description of my home

3 - somewhat *accurate* description of my home

4 - very *accurate* description of my home

To complete the instrument, read each statement and circle a number for each statement. For example:

1 2 [✓ 3] 4 Children play at home every day.

Remember to circle the number which best represents how accurately the statement describes your preschool child's home environment.

KEY: 1 - very inaccurate description of my home
2 - somewhat inaccurate description of my home
3 - somewhat accurate description of my home
4 - very accurate description of my home

* *

S--0 1. 1 2 3 4 Play activities change every day.

A--0 2. 1 2 3 4 High shelves are used to keep toys out of reach.

C--0 3. 1 2 3 4 Children have to play around tables and chairs.

X--+ 4. 1 2 3 4 Play activities vary in difficulty.

S--+ 5. 1 2 3 4 Children move from one activity to another without being told.

X--0 6. 1 2 3 4 Children's play is frequently interrupted by adults.

C--+ 7. 1 2 3 4 Open space is available for indoors active play.

A--+ 8. 1 2 3 4 Children can touch anything in a room.

S--+ 9. 1 2 3 4 Toys and equipment are permanently set up in some areas.

S--+ 10. 1 2 3 4 When starting an activity, children know what to do first.

S--0 11. 1 2 3 4 Children rush around from one play area to another.

X--0 12. 1 2 3 4 Each toy has a special game that is played with it.

A--0 13. 1 2 3 4 Areas may be off-limits for children's play.

A--+ 14. 1 2 3 4 Numerous materials and activities are available for children to use at all times.

X--+ 15. 1 2 3 4 Children talk a lot during activities.

X--0 16. 1 2 3 4 Children receive clear directions about using toys and materials.

S--0 17. 1 2 3 4 Sometimes there isn't enough time to get buttons, zippers and snaps fastened before children leave.

S--+ 18. 1 2 3 4 Children know where to find materials and toys.

C--0 19. 1 2 3 4 Play areas are small and compact.

C--+ 20. 1 2 3 4 Children attach names to different play areas.

KEY: 1 - very inaccurate description of my home
2 - somewhat inaccurate description of my home
3 - somewhat accurate description of my home
4 - very accurate description of my home

* *

A--+ 21. 1 2 3 4 No limits are set on what a child can do with a toy or play material.

X--0 22. 1 2 3 4 Adults guide children's activities very closely.

X--+ 23. 1 2 3 4 Children do the best they can with difficult tasks.

X--+ 24. 1 2 3 4 Play is uninterrupted for long periods.

S--0 25. 1 2 3 4 Daily routines vary greatly from day to day.

S--+ 26. 1 2 3 4 Favorite or familiar activities are repeated often.

C--0 27. 1 2 3 4 Other people use the places where children play.

C--+ 28. 1 2 3 4 Special furniture is available for activities like sand play or water play.

S--0 29. 1 2 3 4 Activities just happen.

X--+ 30. 1 2 3 4 The same activity may extend for several days.

A--0 31. 1 2 3 4 Harmful substances are absolutely beyond the reach of children.

C--0 32. 1 2 3 4 Activities sometimes spill over into other places besides play areas.

S--+ 33. 1 2 3 4 Children recognize when an activity is about to end.

X--0 34. 1 2 3 4 Specific directions are given before a child uses new toys or materials.

A--+ 35. 1 2 3 4 Paints are available for children to use whenever they want.

C--+ 36. 1 2 3 4 Children have places where they can leave toys out.

S--0 37. 1 2 3 4 Children can do whatever they think of at the moment.

X--0 38. 1 2 3 4 Children have to know how to play with a toy before they can use it.

A--0 39. 1 2 3 4 Gates or closed doors are used to keep children out of some areas.

KEY: 1 - very inaccurate description of my home
2 - somewhat inaccurate description of my home
3 - somewhat accurate description of my home
4 - very accurate description of my home

* *

C--0 40. 1 2 3 4 Children play in the same areas where adults work.

S--+ 41. 1 2 3 4 Holidays are about the only events which cause changes in the child's routine.

X--+ 42. 1 2 3 4 Toys and games are somewhat complicated.

A--+ 43. 1 2 3 4 Many toys and materials are used during one activity or play time.

C--+ 44. 1 2 3 4 Children play in a special playroom.

S--0 45. 1 2 3 4 New toys or activities appear frequently.

X--+ 46. 1 2 3 4 Children invent many games for the same material or toy.

A--0 47. 1 2 3 4 Some toys and activities are reserved for special occasions.

C--0 48. 1 2 3 4 Toys get in the way of adult activities.

S--0 49. 1 2 3 4 Children are surprised frequently by activities.

X--0 50. 1 2 3 4 Child has toys and materials which are easy for her to manage.

A--0 51. 1 2 3 4 Play areas can be used only if supervised by adults.

X--0 52. 1 2 3 4 Many games and activities require only one child.

A--+ 53. 1 2 3 4 Children have chairs which are sized for them.

A--+ 54. 1 2 3 4 Children use different games and toys in the course of a day.

C--0 55. 1 2 3 4 Adults may need to tell children to move their activities.

C--+ 56. 1 2 3 4 Play activity areas are defined by furniture arrangement.

S--0 57. 1 2 3 4 Children never know what they are going to do next.

X--0 58. 1 2 3 4 Adults help children with difficult tasks.

KEY: 1 - very inaccurate description of my home
2 - somewhat inaccurate description of my home
3 - somewhat accurate description of my home
4 - very accurate description of my home

* *

A--0 59. 1 2 3 4 Toys may be removed from play areas for periods of time.

C--0 60. 1 2 3 4 Quiet and noisy activities occur in the same place.

S--+ 61. 1 2 3 4 Children usually have enough time to put on their own coats.

S--+ 62. 1 2 3 4 Play periods end before children get restless.

X--+ 63. 1 2 3 4 Children are encouraged to experiment with toys and materials.

A--0 64. 1 2 3 4 Adult-sized furniture is adapted for children's use.

C--0 65. 1 2 3 4 Children play in areas which are used for other things.

S--0 66. 1 2 3 4 Children ask about what is going to happen next.

S--+ 67. 1 2 3 4 Materials and toys are kept in the same places every day.

X--+ 68. 1 2 3 4 Play activities are challenging for the child.

X--+ 69. 1 2 3 4 Play materials are sometimes used in unplanned ways.

A--0 70. 1 2 3 4 Adults need to get out some materials or toys for children.

C--0 71. 1 2 3 4 The same area is used by children for lots of different activities.

C--+ 72. 1 2 3 4 Play areas look like play areas.

A--+ 73. 1 2 3 4 Children select their own play materials.

X--0 74. 1 2 3 4 Children often complete an activity which an adult has started for them.

S--+ 75. 1 2 3 4 Changes in routine are infrequent.

X--0 76. 1 2 3 4 Activities are selected so that they will not be too difficult.

S--+ 77. 1 2 3 4 When one activity ends, children usually know what to expect next.

KEY: 1 - very inaccurate description of my home
2 - somewhat inaccurate description of my home
3 - somewhat accurate description of my home
4 - very accurate description of my home

* *

A--+ 78. 1 2 3 4 Children can reach some things that would hurt them; but they know better than to try.

S--+ 79. 1 2 3 4 Children have plenty of time to get involved in activities.

C--+ 80. 1 2 3 4 Play space is large enough to accommodate the toys children have.

C--+ 81. 1 2 3 4 Play areas are used only by children for play.

A--+ 82. 1 2 3 4 Child can find materials to suit any activity he wishes to play.

C--+ 83. 1 2 3 4 Children have plenty of space for activities.

APPENDIX D

FINAL SCALE ITEMS

Accessibility Scale

Final Items

Negative Items

1. High shelves are used to keep toys out of reach of children.

9. Areas may be off-limits for children's play.

15. Adults guide children's activities very closely.

23. Gates or closed doors are used to keep children out of some places.

29. Some toys and activities are reserved for special occasions.

31. Play areas can be used only if supervised by adults.

34. Toys may be removed from play areas for periods of time.

41. Adults need to get out some materials or toys for children.

Positive Items

4. Children can touch anything in the room.

10. Numerous materials and activities are available for children to use at all times.

14. No limits are set on what a child can do with a toy or play material.

21. Paints are available for children to use.

43. Children select their own play materials.

50. Child can find materials to suit any activity he wishes to play.

Configuration Scale

Final Items

Negative Items

2. Children have to play around tables and chairs.
13. Play areas are small and compact.
18. Other people use the places where children play.
24. Children play in the same areas where adults work.
30. Toys get in the way of adult activities.
37. Children play in areas that are used for other things.

Positive Items

25. Open space is available for indoors active play.
27. Children play in a special playroom.
42. Play areas look like play areas.
48. Play space is large enough to accommodate the toys children have.
49. Play areas are used only for children to play.
51. Children have plenty of space for play activities.

Instability Scale

Final Items

Negative Items

7. Children rush around from one play area to another.

12. Sometimes there isn't enough time to get buttons, zippers and snaps fastened before leaving.

17. Daily routines vary from day to day.

32. Children never know what they are going to do next.

38. Children ask about what is going to happen next.

Positive Items

3. Holidays are about the only events which cause changes in the child's routine.

5. Toys and equipment are permanently set up in some areas.

6. When starting an activity, children know what to do first.

19. Children recognize when an activity is about to end.

35. Play periods end before children get restless.

45. Changes in routine are infrequent.

47. When one activity ends, children usually know what to expect next.

Complexity Scale

Final Items

Negative Items

8. Each toy has a special game that is played with it.

11. Children receive clear directions about using toys and materials.

20. Specific directions are given before the child uses new toys or materials.

22. Children have to know how to play with a toy before they can use it.

33. Adults help children with difficult tasks.

44. Children often complete an activity which an adult has started for them.

46. Activities are selected so that they will not be too difficult for the child.

Positive Items

16. Children do the best they can with difficult tasks.

26. Toys and games are somewhat complicated.

28. Children invent many games for the same toy or material.

36. Children are encouraged to experiment with toys and materials.

39. Play activities are challenging for the child.

40. Play materials are sometimes used in unplanned ways.

APPENDIX E

FINAL ENVIRONMENTAL SETTING QUESTIONNAIRE

Environmental Setting Questionnaire

This questionnaire is designed to provide a description of your classroom environment. It consists of a set of statements which describe different characteristics of classroom environments. Each statement is preceded by a set of numbers which you will use to indicate how accurately the statement describes your particular classroom environment. The key below explains what each number means.

KEY: 1 - very inaccurate description of my classroom

2 - somewhat inaccurate description of my classroom

3 - somewhat accurate description of my classroom

4 - very accurate description of my classroom

To complete the instrument, read each statement and circle a number for each statement. For example:

1 2 [✓ 3] 4 Children play every day.

Remember to circle the number which best represents how accurately the statement describes your classroom environment.

Judith Seaver
150 Chambers Building
The Pennsylvania State University
University Park, Pa. 16802

KEY: 1 - very inaccurate description of my classroom
2 - somewhat inaccurate description of my classroom
3 - somewhat accurate description of my classroom
4 - very accurate description of my classroom

* *

1. 1 2 3 4 High shelves are used to keep toys out of reach.

2. 1 2 3 4 Children have to play around tables and chairs.

3. 1 2 3 4 Holidays are about the only events which cause changes in the child's routine.

4. 1 2 3 4 Children can touch anything in a room.

5. 1 2 3 4 Toys and equipment are permanently set up in some areas.

6. 1 2 3 4 When starting an activity, children know what to do first.

7. 1 2 3 4 Children rush around from one play area to another.

8. 1 2 3 4 Each toy has a special game that is played with it.

9. 1 2 3 4 Areas may be off-limits for children's play.

10. 1 2 3 4 Numerous materials and activities are available for children to use at all times.

11. 1 2 3 4 Children receive clear directions about using toys and materials.

12. 1 2 3 4 Sometimes there isn't enough time to get buttons, zippers and snaps fastened before children leave.

13. 1 2 3 4 Play areas are small and compact.

14. 1 2 3 4 No limits are set on what a child can do with a toy or play material.

15. 1 2 3 4 Adults guide children's activities very closely.

16. 1 2 3 4 Children do the best they can with difficult tasks.

17. 1 2 3 4 Daily routines vary greatly from day to day.

18. 1 2 3 4 Other people use the places where children play.

Judith Seaver
150 Chambers Building
The Pennsylvania State University
University Park, Pa. 16802

KEY: 1 - very inaccurate description of my classroom
2 - somewhat inaccurate description of my classroom
3 - somewhat accurate description of my classroom
4 - very accurate description of my classroom

* *

19. 1 2 3 4 Children recognize when an activity is about to end.

20. 1 2 3 4 Specific directions are given before a child uses new toys or materials.

21. 1 2 3 4 Paints are available for children to use whenever they want.

22. 1 2 3 4 Children have to know how to play with a toy before they can use it.

23. 1 2 3 4 Gates or closed doors are used to keep children out of some places.

24. 1 2 3 4 Children play in the same areas where adults work.

25. 1 2 3 4 Open space is available for indoors active play.

26. 1 2 3 4 Toys and games are somewhat complicated.

27. 1 2 3 4 Children play in a special playroom.

28. 1 2 3 4 Children invent many games for the same material or toy.

29. 1 2 3 4 Some toys and activities are reserved for special occasions.

30. 1 2 3 4 Toys get in the way of adult activities.

31. 1 2 3 4 Play areas can be used only if supervised by adults.

32. 1 2 3 4 Children never know what they are going to do next.

33. 1 2 3 4 Adults help children with difficult tasks.

34. 1 2 3 4 Toys may be removed from play areas for periods of time.

35. 1 2 3 4 Play periods end before children get restless.

36. 1 2 3 4 Children are encouraged to experiment with toys and materials.

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KEY: 1 - very inaccurate description of my classroom
2 - somewhat inaccurate description of my classroom
3 - somewhat accurate description of my classroom
4 - very accurate description of my classroom

* *

37. 1 2 3 4 Children play in areas which are used for other things.

38. 1 2 3 4 Children ask about what is going to happen next.

39. 1 2 3 4 Play activities are challenging for the child.

40. 1 2 3 4 Play materials are sometimes used in unplanned ways.

41. 1 2 3 4 Adults need to get out some materials or toys for children.

42. 1 2 3 4 Play areas look like play areas.

43. 1 2 3 4 Children select their own play materials.

44. 1 2 3 4 Children often complete an activity which an adult has started for them.

45. 1 2 3 4 Changes in routine are infrequent.

46. 1 2 3 4 Activities are selected so that they will not be too difficult.

47. 1 2 3 4 When one activity ends, children usually know what to expect next.

48. 1 2 3 4 Play space is large enough to accommodate the toys children have.

49. 1 2 3 4 Play areas are used only by children for play.

50. 1 2 3 4 Child can find materials to suit any activity he wishes to play.

51. 1 2 3 4 Children have plenty of space for activities.

* *

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APPENDIX F

PRESCHOOL PROGRAM CHECKLIST

Because programs for young children can vary widely in orientation and emphasis, it is essential for the accurate analyses of data from this questionnaire that your particular program emphasis be identified. Please check the description which best describes your classroom's program.

( ) Program stresses the learning of specific skills. Teacher directs children's learnings through sequenced lessons.

( ) Program provides a rich environment with spontaneous choice of activity by the child. Teacher provides experiences and activities that are appropriate for the child's readiness level.

( ) Program emphasizes the development of thinking skills. Teacher plans activities which will match or extend child's present thinking level.

* *

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